8-25-09

Operating the DAQSTATION CX1000

Starting the System

1. Turn the toggle switch on the cabinet to the on position.

Run/Stop Operation

1. Use the arrow keys to move the cursor to the desired control loop.
2. Press the RUN/STP soft key.
3. Select Run or Stop using the up and down arrow keys.
4. Press the DISP/ENTER key to confirm the changes.

Switching between Auto and Manual control modes

1. Use the arrow keys to move the cursor to the desired control loop.
2. Press the Mode soft key.
3. Select AUT (auto), or MAN (manual) using the up and down arrow keys.
4. Press the DISP/ENTER key to confirm the changes.

Changing the Target Setpoint (Auto Mode only)

1. Use the arrow keys to move the cursor to the desired control loop.
2. Press the SP soft key.
3. Change the target setpoint using the up and down arrow keys.
4. Press the DISP/ENTER key to confirm the changes.

Changing the Control Output (Manual Mode only)

1. Use the arrow keys to move the cursor to the desired control loop.
2. Press the OUT soft key.
3. Change the control output using the up and down arrow keys.

(The control output is set to the new value at this point.)

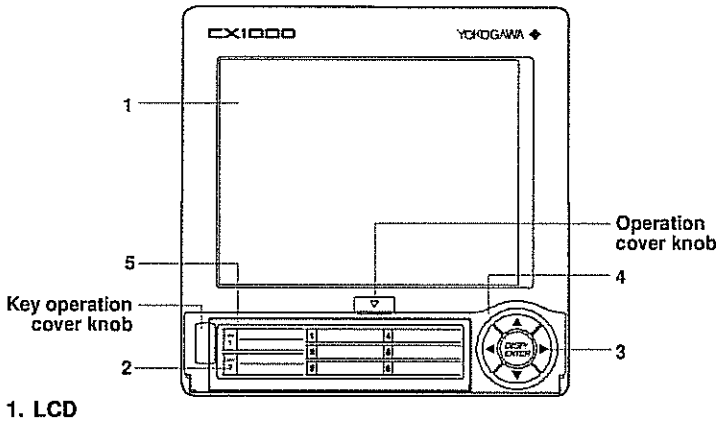
4. Press the DISP/ENTER key to complete the procedure.

Saving Data

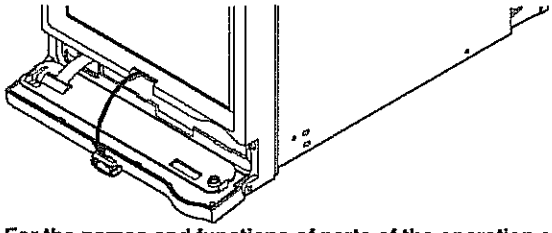
1. Insert Zip Disc into drive.
2. Press START key.
3. When finished collecting data press STOP key.
4. Data is collected to disc under time and date.
5. Good luck finding a computer with a Zip drive!

3.1 Names and Functions of Sections

Front Panel

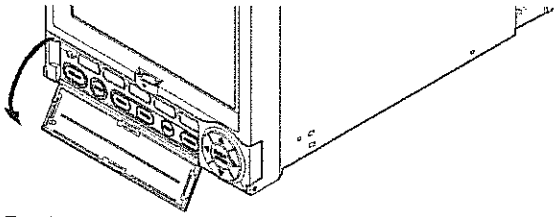


1. **LCD**
   Various screens appear in the LCD, such as the control group display and setup displays. For a description of each display screen, see section 3.2, "Basic Key Operations."
2. **Label**
   Used to identify each channel. Write the appropriate information on the label as needed.
3. **Keys**
   Includes the left, up, and down arrow keys, as well as the DISP/ENTER key. In operation mode, these keys are used to switch between the operation displays. In the setup screens where functions are configured, the keys are used to select parameters and to confirm new settings.
4. **Operation Cover**
   If you need to insert or remove the external storage medium, you can open the operation cover by pressing down on the operation cover knob that is located at the upper section of the cover and pulling it forward. Make sure to have the operation cover closed at all times except when handling the external storage medium.



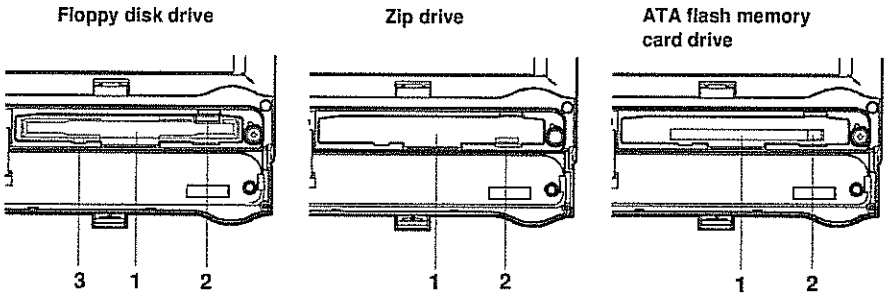
For the names and functions of parts of the operation section, see the next page.

5. **Key Operation Cover**
   This cover is opened when you access the keys other than the arrow keys and the DISP/ENTER key. The key operation cover opens by pulling the key operation cover knob at the upper left corner of the cover forward.



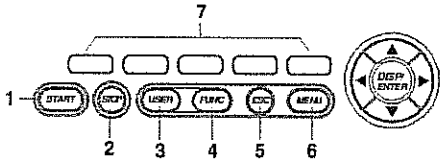
For the names and functions of parts of the key operation section, see the next page.
For a description on how to operate the keys, see section 3.2, "Basic Key Operations."

Operation Section



1. **Drive for external storage medium**
   Depending on the specification you made at the time of purchase, a floppy disk drive, a Zip drive, or an ATA flash memory card drive is installed.
2. **Eject button (Zip disk access lamp)**
   Used when ejecting the external storage medium. On a Zip drive, the button is also an access lamp. It illuminates when data is being written or read.
3. **Floppy disk access lamp**
   Illuminates when data is being written or read.

Key Operation Section



1. **START key**
   Starts the data acquisition to the internal memory, and displays the waveform on the trend display.
2. **STOP key**
   Stops the data acquisition to the internal memory. Also stops the updating of the waveform on the trend display.
3. **USER key**
   Used to execute the assigned action.
4. **FUNC key**
   If the key is pressed in operation mode, a soft key menu is displayed at the bottom section of the display enabling the execution of various functions. The key is also used when switching from setting mode to operation mode.
5. **ESC key**
   Used when canceling an operation. Also used when returning from setting mode to operation mode.
6. **MENU key**
   Used when switching from operation mode to setting mode. Also used when returning from setting mode to operation mode.
7. **Soft keys**
   When a soft key menu is displayed at the bottom section of the display in operation, setting, or basic setting mode, these soft keys are used to change the operation and setup information.

The information above explains the basic functions of each key. For a description on how to operate the keys, see *section 3.2, "Basic Key Operations."*

Control Operation Display

In operation mode, the following control operation displays can be shown.

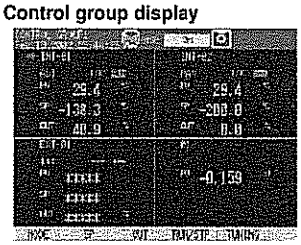
- Control group display
  This display is used to monitor the control status of multiple loops simultaneously including external loops. You can select from three display styles as shown in the display example in the figure below. If you include the measurement channels for the measurement function in the group, you can also monitor the measured values on the measurement channels at the same time on this display.
- Tuning display
  This display is used to optimize (tune) the control parameters such as PID constants.
- Overview display
  This display is used to monitor the alarm status of all control loops.
- DI/DO status display
  Displays the ON/OFF status of the current contact input (DI) and contact output (DO).
- Control action summary display
  Displays a log of control actions such as operation run/stop and auto/manual operation switching.

On models with the program control function option, additional displays are available such as 1) the program control display, which can show the pattern and current PV accumulated on the screen during program operation and 2) the program event summary display, which shows a log of time events and PV events that occurred during program operation.

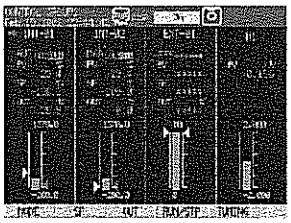
Displays common with the measurement function include: 1) the alarm summary display, which shows a log of alarm occurrence status and 2) the memory summary display, which shows the file information of the internal memory. In addition, the values of PV, SP, and OUT can be assigned to channels, and the trends of these channels can be displayed along with the trends of measurement channels on the trend display of the measurement function.

Display Examples

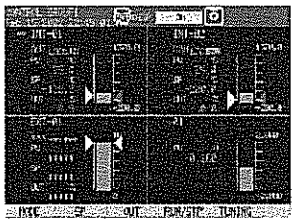
• Control group display



Controller style

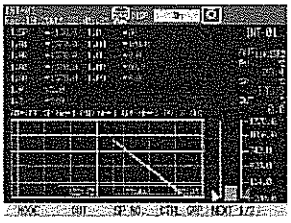


Faceplate style

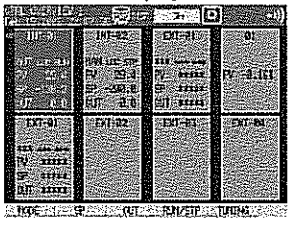


Hybrid style

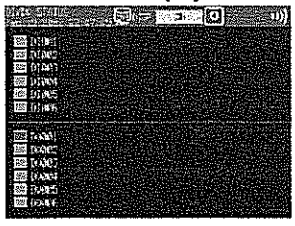
• Tuning display



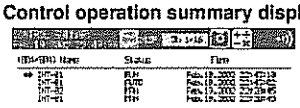
• Overview display



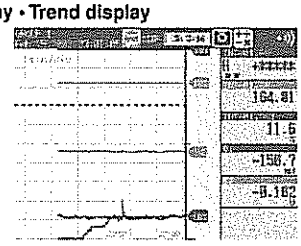
• DI/DO status display



• Control operation summary display



• Trend display



• Program control display