

DIGITECH Duplicating Dispenser Digital 2.5 Gallon

Instruction Manual

1. Overview

The DIGITECH Duplicating Dispenser Digital 2.5 Gallon is a fully automatic agar melting and dispensing machine designed for dental duplicating processes. It provides fast, uniform heating, continuous stirring, and automatic temperature control.

2. Features

- Fully digital touch-screen interface
- Automatic heating and stirring cycle
- Timer for daily automatic start-up
- Intelligent temperature control to avoid overheating
- Capacity: 11 liters (2.5 gallons)
- Power: 1300W, Heating: 1200W
- Voltage: 110V 50Hz / 220V 60Hz
- Dimensions: 360 × 330 × 580 mm

3. Safety Precautions

1. Always connect the machine to a properly grounded power outlet.
2. Do not operate the machine without liquid or agar inside.
3. Turn off the main power switch when not in use.
4. Avoid touching heating elements during operation.
5. Use only original DIGITECH replacement parts.

4. Installation

1. Place the unit on a stable, heat-resistant surface.
2. Connect the power cord to the appropriate voltage supply.
3. Ensure proper ventilation around the machine.
4. Turn on the power switch located on the side panel.

5. Operation Instructions

STEP 1: Preparation

Cut agar into small pieces no larger than 2 cm and place them into the pot.

STEP 2: Power On

Switch on the power; the screen will illuminate.

STEP 3: Manual Operation

Press START to begin heating and stirring.

STEP 4: Automatic Start Timer

Set the time on the time setting screen and keep the power ON overnight. The unit will start automatically at the set time.

6. Parameter Settings

Heating Temp: 90°C

Constant Temp: 50°C

Stirring Temp: 40°C

Stir On: 4 min

Stir Off: 1 min

Tone Duration: 10 sec

7. Working Process

Start heating → Stirring starts → Reach temperature → Cooling fan activates → Maintain constant temperature.

8. Screen Descriptions

Main Interface: Displays current temp, start/stop buttons.

Parameter Setting Interface: Adjust D150–D155 values.

Time Setting Interface: Configure auto start.

9. Maintenance

1. Clean only when powered off and cooled.
2. No metal tools.
3. Inspect cable monthly.
4. Keep fan vents clean.

10. Troubleshooting

Serial 1 Error: Check cable, PLC FX-CPU parameters (9600 baud, 7 data bits, even parity, 1 stop bit).

Machine not heating: Check fuse.

Stirring not working: Check motor.

Overheating: Replace sensor.

11. Important Notes

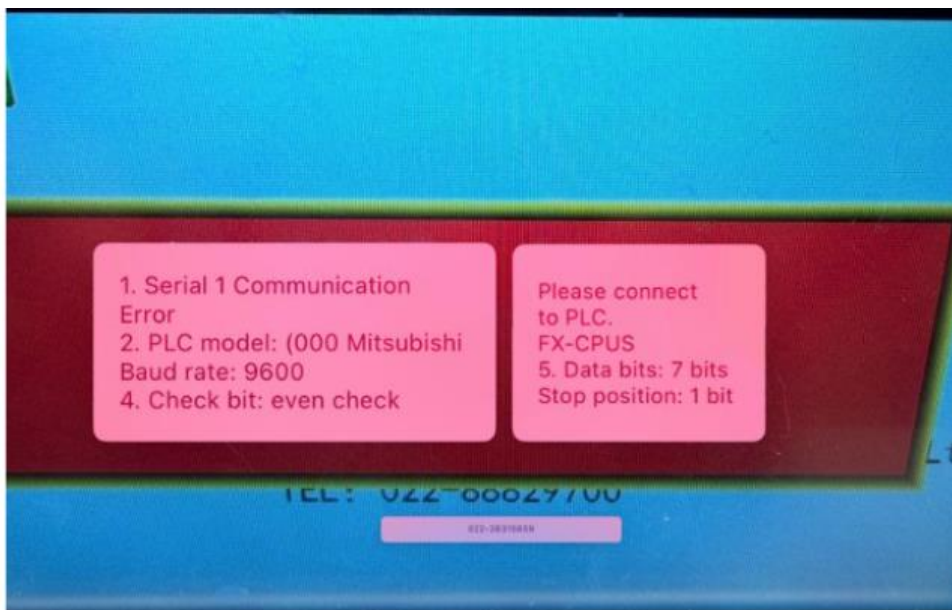
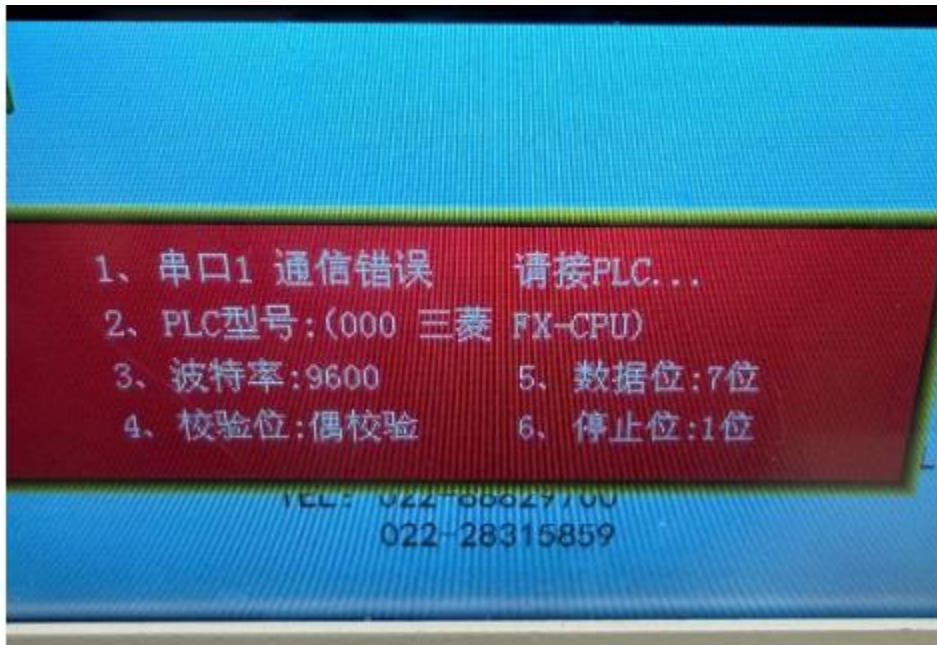
Turn off power when not in use. Avoid dry burning.

Manufacturer: DIGITECH

Model: Digital Agar Duplicating Dispenser 2.5 Gallon

Version: v1.0 (2025)

The screen error means the **agar dispenser's PLC communication is not connecting** to the HMI.



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Error shown:

1. Serial 1 Communication Error

2. PLC model: (000 Mitsubishi)

Baud rate: 9600

4. Check bit: even check

Please connect to PLC

FX-CPU

Data bits: 7 bits

Stop position: 1 bit

Cause

The HMI (touchscreen) has lost serial communication with the Mitsubishi FX-series PLC.

Most common fixes

1. **Check the communication cable** between HMI and PLC. Re-seat or replace if loose or damaged.
2. **Verify power** to the PLC (FX-CPU LED must be ON).
3. **Confirm port settings** match on both sides:
 - Baud rate: 9600
 - Data bits: 7
 - Parity: Even
 - Stop bits: 1
 - Protocol: RS-232 or RS-422 depending on model
4. **Reconnect PLC in HMI configuration** (HMI software → System parameters → COM port setup → select Mitsubishi FX CPU).
5. **Restart** both units after confirming settings.

If error persists, either the PLC port is defective or firmware mismatch exists.

Would you like me to give the exact parameter configuration for a typical Mitsubishi FX-series connection to an HMI (model-specific)?