

Sanyo MIR-554 Instruction Manual

Cooled incubator

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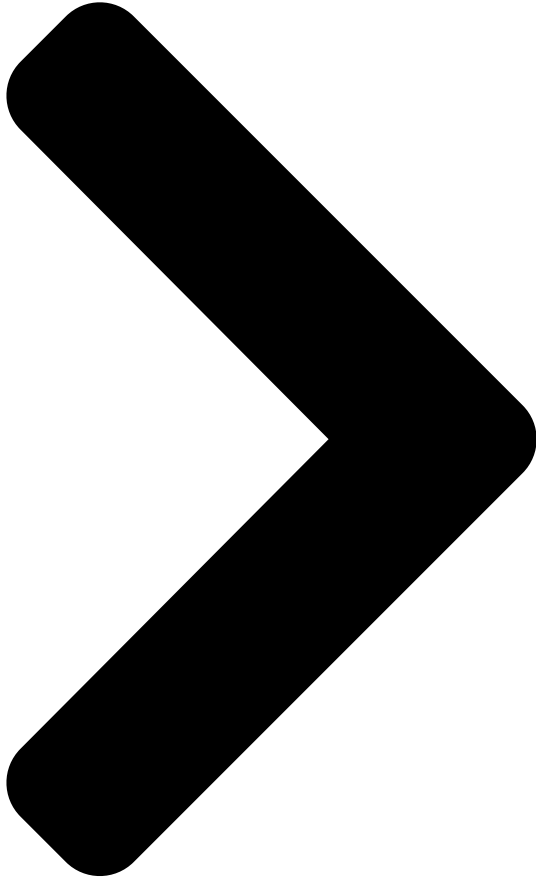
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INSTRUCTION MANUAL

MIR-554

Cooled Incubator

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Related Manuals for Sanyo MIR-554

[Refrigerator Sanyo VR-L4110WSEC - Commercial Solutions Lab Manual](#)

Booklet (40 pages)

[Accessories Sanyo MIR-162 Service Manual](#)

(52 pages)

[Accessories Sanyo MCO-5M Instruction Manual](#)

Multi-gas incubator (48 pages)

[Accessories Sanyo MCO-5M Service Manual](#)

Multi-gas incubator (57 pages)

[Accessories Sanyo MCO-18AIC Service Manual](#)

(87 pages)

[Accessories Sanyo MCO-19AIC\(UV\) Instruction Manual](#)

Co2 incubator (68 pages)

[Accessories Sanyo MCO-18AC UV Instruction Manual](#)

Co2 incubator (46 pages)

[Accessories Sanyo BC-1206 Parts List](#)

Kegeerator beer cooler (6 pages)

[Accessories Sanyo ECO-i ATK-RZP56BGWB User Manual](#)

Solenoid valve kit: heat recovery models (1 page)

Summary of Contents for Sanyo MIR-554

[Page 1](#) INSTRUCTION MANUAL MIR-554 Cooled Incubator...

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[Page 4: Introduction](#)

■ Contact Sanyo sales representative or agent if any page of the manual is lost or page order is incorrect. ■ Contact Sanyo sales representative or agent if any point in this manual is unclear or if there are any inaccuracies.

[Page 5: Precautions For Safe Operation](#)

PRECAUTIONS FOR SAFE OPERATION It is imperative that the user complies with this manual as it contains important safety advice. Items and procedures are described so that you can use this unit correctly and safely. If the precautions advised are followed, this will prevent possible injury to the user and any other person.

[Page 6](#) PRECAUTIONS FOR SAFE OPERATION WARNING Do not use the unit outdoors. Current leakage or electric shock may result if the unit is exposed to rain water. Only qualified engineers or service personnel should install the unit. The installation by unqualified personnel may cause electric shock or fire. Install the unit on a sturdy floor and take an adequate

precaution to prevent the unit from turning over.

[Page 7](#) PRECAUTIONS FOR SAFE OPERATION WARNING Ensure you do not inhale or consume medication or aerosols from around the unit at the time of maintenance. These may be harmful to your health. Never splash water directly onto the unit as this may cause electric shock or short circuit. Never put containers with liquid on the unit as this may cause electric shock or short circuit when the liquid is spilled.

[Page 8](#) Never store corrosive substances such as acid or alkali in this unit if the container cannot be sealed. These may cause corrosion of inner components or electric parts. Consult Sanyo sales representative or agent when you use a material resulting in the corrosive gas such as in the case of insect breeding.

[Page 9: Environmental Conditions](#)

ENVIRONMENTAL CONDITIONS This equipment is designed to be safe at least under the following conditions (based on the IEC 61010-1): ■ Indoor use; ■ Altitude up to 2000 m; ■ Ambient temperature 5 C to 40 ■ Maximum relative humidity 80% for temperature up to 31 C decreasing linearly to 50% relative humidity at 40 ■...

[Page 10: Incubator Components](#)

INCUBATOR COMPONENTS...

[Page 11](#) INCUBATOR COMPONENTS 1. Shade: To protect the fluorescent lamp. 2. Door: The door can be opened to 130 degree approx. The door is sealed securely to the cabinet by the magnetic gasket when it is closed. Condensation may occur at the inner side of the door when a lot of damp material stored. 3.

[Page 12: Control Panel](#)

INCUBATOR COMPONENTS Control panel 1. LCD panel 2. High limit temperature alarm volume (HIGH LIMIT) To set the temperature of high limit temperature alarm. 3. Low limit temperature alarm volume (LOW LIMIT) To set the temperature of low limit temperature alarm. 4.

[Page 13: Switch Box](#)

INCUBATOR COMPONENTS Switch box 1. Power switch (POWER) The switch for ON/OFF of all power source including the plug outlet. 2. Remote alarm terminals Alarm signal can be drawn out via the contact output. Permissible contact capacity : DC30 V□2 A a) Contact output: Connect the lead wires to COM and NO terminals.

[Page 14: Installation Site](#)

INSTALLATION SITE To operate this unit properly and to obtain maximum performance, install the unit in a location with the following conditions: ■ A location not subjected to direct sunlight Do not install the unit under direct sunlight. Installation in a location subjected to direct sunlight cannot obtain the intended performance.

[Page 15: Installation](#)

INSTALLATION SITE CAUTION Do not install it on the place (near the drain facilities etc.) where the corrosion cause material like the sulfur compound etc. might be generated. The refrigeration unit is deteriorated, and it causes the breakdown of the product due to the corrosion of the copper pipe. ■...

[Page 16: Top Screen](#)

TOP SCREEN The top screen below is displayed when turning on the power switch. The default temp. is 25.0 C. The date and time are preset at the factory. Refer to page 38 when more accurate setting is needed. S t a n d - b y T o p S c r e e n T e m p...

[Page 17: Functions Through Control Panel](#)

FUNCTIONS THROUGH CONTROL PANEL The following functions are available through control panel: ■ Setting of standby operation: To set a running condition at the start-up or completion of programmed running. (refer to page 16) ■ Programming and edit: To set a new program (page 21), or to edit (page 27), or delete (page 42) an user program.

[Page 18: Setting Of Key Lock \(Menu/Std-By\)](#)

STANDBY OPERATION (MENU/Std-by) ■ Light step □ 1 (ON) or 0 (OFF). In the case of selecting 0 (OFF), by pressing rightward shift key, lighting is turned on or off when the top screen is displayed. (During programmed running, on/off of lighting depends on the program.) ※The lighting is available only with temperature range between +2 and +50 C when the optional light add-on kit (MIR-L15) is installed.

[Page 19: Procedures Of Setting Value](#)

SETTING OF KEY LOCK (MENU/Std-by) Caution: The buzzer rings for a long time when a wrong password is input. Input a correct password. The password for key unlock must be shared and administered by all users on this product. The setting of key unlock when shipped from the factory is "0000". Refer to page 40 for changing the password.

[Page 20: Setting Of Key Lock](#)

MENU MENU window is displayed. Select OK in MENU window and The set value is memorized and top screen is ENTER press the enter key (ENTER). displayed. Note: Consult Sanyo sales representative or agent if you put off the password.

[Page 21: High Limit/Low Limit Alarm \(Menu/Std-By\)](#)

HIGH LIMIT/LOW LIMIT ALARM (MENU/Std-by) A high limit temperature alarm and low limit temperature alarm are provided with this product. The alarm temperature can be changed as follows: 1. With the top screen displayed, press the menu button (MENU) to show the menu window. Select "Std-by", and press the enter key (ENTER).

[Page 22: Programming \(Menu/Edit\)](#)

PROGRAMMING (MENU/Edit) This product has two modes, which are clock mode and timer mode. The clock mode is used to set a change time to the next step in a day time (24 hours). The timer mode is used to set a time for each step directly and the remained time is displayed.

[Page 23](#) PROGRAMMING (MENU/Edit) 4. A model program is displayed. 2 S t p 1 C y c T i m e 7 2 : 0 0 ∞ T e m p 3 7 . 0 4 . 0 The step number (Stp :step) and cycle number (Cyc :repeat number) can be changed on the top left corner (2Stp 1Cyc) of the screen.

[Page 24](#) PROGRAMMING (MENU/Edit) 5. Highlight the numerical value of each time section (Time) by shift key, and input as below by character input key. 1 0 S t p 3 1 C y c T i m e 6 : 0 0 9 : 0 0 1 1 : 0 0 1 3 : 0 0 1 5 : 0 0 1 7 : 0 0 T i m e 1 9 : 0 0 ...

[Page 25](#) PROGRAMMING (MENU/Edit) 7. Shifting a cursor downward by downward shift key moves to the next edit "Light" (light step). 1 0 S t p 3 1 C y c T i m e 1 9 : 0 0 2 1 : 0 0 2 2 : 0 0 2 3 : 0 0 T i m e 6 : 0 0 9 : 0 0 1 1 : 0 0 1 3 : 0 0 1 5 : 0 0 1 7 : 0 0 ...

[Page 26](#) PROGRAMMING (MENU/Edit) 10. Input a program name (Oze), and press the menu button (MENU) to show the menu window. Select "Save As", and press the enter key (ENTER). The program is entered. The maximum numbers of character for program name is 16. Refer to edit function of characters described below. Up to 10 programs are created and saved.

[Page 27](#) PROGRAMMING (MENU/Edit) Example 2: To create the following program with timer mode and name "NIKKO". The cycle is 99, that is limitless repeat. Step Time Temperature □ □ Light Step 1. Display a model program as shown on page 21. 2 S t p 1 C y c T i m e 7 2 : 0 0 ...

[Page 28: Edit Of Saved Program \(Menu/Edit\)](#)

EDIT OF SAVED PROGRAM (MENU/Edit) 1. With the top screen displayed, press the menu button (MENU) to show the menu window. Select "Edit", and press the enter key (ENTER). S t a n d - b y T o p S c r e e n M E N U T e m p ...

[Page 29: Start Of Program \(Menu/Run\)](#)

START OF PROGRAM (MENU/Run) 1. With the top screen displayed, press the menu button (MENU) to show the menu window. Select "Run", and press the enter key (ENTER). S t a n d - b y T o p S c r e e n M E N U T e m p 2 5 .

[Page 30](#) START OF PROGRAM (MENU/Run) 4. The selected program is displayed. Check the

program and press the menu button (MENU) to show the menu window. Select "Start", and press the enter key (ENTER). O z e C y c l e / 3 1 C l o c k M E N U S t a r t...

[Page 31: Join Function](#)

JOIN FUNCTION This product has join function to run several programs continuously. The maximum programs to be joined are 9. The setting of join function is as follows: 1. When joining three programs Spring, Summer and Autumn, input the same character string, # and one digit figure (joined order) before the each program name.

[Page 32: Skip Of Step \(Menu/Skip\)](#)

SKIP OF STEP (MENU/Skip) During the programmed running, the skip function is effective to skip a current step in the program. 1. Press the menu button (MENU) to show the menu window and select "Graph" when the top screen is displayed.

[Page 33: Stop Of Program \(Menu/Stop\)](#)

STOP OF PROGRAM (MENU/Stop) During the programmed running, it is possible to stop the running at any step. 1. During the programmed running, press the menu button (MENU) to show the menu window and select "Graph" when the top screen is displayed. Then press the enter key (ENTER). 2.

[Page 34: Automatic Defrost \(Menu/Tools/Date Time\)](#)

AUTOMATIC DEFROST (MENU/Tools/Date Time) This product has a frost check opening to check amount of the frost on the evaporator that lowers temperature in a chamber. Automatic defrost function defrosts the frost on the evaporators automatically at the specified time everyday. Default setting is 0(Manual). 1.

[Page 35: Manual Defrost \(Menu/M.def\)](#)

MANUAL DEFROST (MENU/M.def) The manual defrost function is for defrosting the frost on the evaporator at any time. When a lot of frost on the main evaporator is found, start the manual defrost. Besides this function, it is possible to set the automatic defrost function.

[Page 36: Various Setting \(Menu/Tools\)](#)

VARIOUS SETTING (MENU/Tools) The log can be displayed and various setting can be changed by using "Tools" menu. 1. Press the menu button (MENU) with the top screen to show the menu window. Select "Tools, and press the enter key (ENTER). S t a n d - b y T o p S c r e e n...

Page 37 **VARIOUS SETTING (MENU/Tools)** 3. The display area (upper and lower limit) can be changed. Press the menu button (MENU) to show the menu window. Select "Range2" and press the enter key (ENTER). Upper limit is changed from C to 60 C and lower limit is changed from 0 C to -10 (5 0...

Page 38 -hyper terminal). (when not registered in the start menu, C:\Program Files\Windows NT\hypertrm.exe) 2. Through the hyper terminal display, set new connection, name (for example: Sanyo), setting of connection, method of connection, COM1, property of COM1 and port. bit/sec; 9600, data bit; 8, parity; no, stop bit; 1, flow control; Xon/Xoff.

[Page 39: Setting Of Date, Time, Log \(Tools/Date Time\)](#)

VARIOUS SETTING (MENU/Tools) Setting of date, time, log (Tools/Date Time) 1. Select "Date Time" in the Select Tools screen. Press the menu button (MENU) to show the menu window. Select "OK", and press the enter key (ENTER). S e l e c t T o o l s M I R - 5 5 4 M E N U...

[Page 40: Alarm Setting \(Tools/Alarm Setting\)](#)

VARIOUS SETTING (MENU/Tools) Alarm setting (Tools/Alarm, Opt., Low Humi. Setting) 1. Select "Alarm, Opt., Low Humi. Setting" in the Select Tools screen. Press the menu button (MENU) to show the menu window. Select "OK", and press the enter key (ENTER). S e l e c t T o o l s M I R - 5 5 4...

[Page 41: Key Lock Password Setting \(Tools/Key Lock Pw Setting\)](#)

User Password Enter User Password Note: Consult Sanyo sales representative or agent if you put off the password.

[Page 42: Default Setting \(Tools/Default Setting\)](#)

C 1: -20~80 Note: DAQ is an external monitoring system of chamber status. It is necessary to set the DAQ Speed, DAQ ID and DAQ Mode when using communication software. Communication software is ordered specially consult Sanyo sales representative or agent.

[Page 43: Delete Of Program \(Tools/Delete User Data\)](#)

VARIOUS SETTING (MENU/Tools) Delete of program (Tools/Delete User Data) 1. Select "Delete User Data" in the Select Tools screen. Press the menu button (MENU) to show the menu window. Select "OK", and press the enter key (ENTER). S e l e c t T o o l s M I R - 5 5 4 M E N U...

[Page 44](#) VARIOUS SETTING (MENU/Tools) 5. To deleting all programs, select "Delete All User Programs" in Delete User Data screen and press the menu button (MENU) to show the menu window. Select "OK" and press the enter key (ENTER). D e l e t e U s e r D a t a M E N U...

[Page 45: Adjustment Of Shelves](#)

ADJUSTMENT OF SHELVES The interval between the shelves can be adjusted depending on the height of the stored items. To install the shelves, insert the clip to the desired location. Shelf support Clip Note: ● The chamber is refrigerated by the forced circulation of cooled air inside the chamber. Ensure that the intake and exhaust vents are not blocked.

[Page 46: Alarms And Safety Functions](#)

ALARMS AND SAFETY FUNCTIONS The unit has the alarms and safety function as shown in the table 1 below. Table 1 Alarms and safety functions Alarm Condition Display Buzzer Remote Safety operation contact 1 Auto-set temp. When the chamber <Top screen> Intermittent Alarm High stage side;...

[Page 47](#) ALARMS AND SAFETY FUNCTIONS Alarm Condition Display Buzzer Remote Safety operation contact 10 Buzzer delay Under condition of _____ — — — — item 1 (delay time; changeable) _____ — — — — 11 Back-up of During power failure Nonvolatile program memory Continuous running after recovery from power failure _____...

[Page 48](#) ALARMS AND SAFETY FUNCTIONS 16 Disconnection of The input voltage <Top screen> Intermittent Alarm Compressor OFF compressor corresponds to -50 tone status E09:Comp.sensor is protective sensor or less opened. Disconnection of sensor 17 Defrost sensor The input voltage <Top screen> Intermittent Alarm Heater OFF...

[Page 49](#) MAINTENANCE WARNING Always disconnect the power supply to the unit prior to any repair or maintenance of the unit in order to prevent electric shock or injury. Ensure you do not inhale or consume medication or aerosols from around the unit at the time of maintenance.

[Page 50: Maintenance Cleaning](#)

4. To replace the evaporating tray, follow the procedure in reverse. Black screws Note: Consult Sanyo sales representative or agent when cleaning the evaporating tray. Replacement of lamp Turn off the power switch and disconnect the power supply plug from the outlet.

[Page 51: Replacement Of Glow Starter](#)

4. Set new glow starters. (type: FG-1P) • The glow starter is consumables. Please replace three glow starters at the same time with the lamps. Glow starter □FG-1P□ 4 screws (fixing the unit cover) Note: Consult Sanyo sales representative or agent when replacing the glow starters.

[Page 52: Troubleshooting](#)

Note: If the malfunction is not eliminated after checking the above items, or the malfunction is not shown in the above table, contact Sanyo sales representative or agent. DISPOSAL OF UNIT WARNING If the unit is to be stored unused in an unsupervised area for an extended period ensure that children do not have access and doors cannot be closed completely.

[Page 53](#) Waste Electrical and Electronic Equipment (WEEE) Directive-2002/96/EC (English) Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.

[Page 54](#) DISPOSAL OF UNIT (French) Votre produit Sanyo est conçu et fabriqué avec des matériels et des composants de qualité supérieure qui peuvent être recyclés et réutilisés. Ce symbole signifie que les équipements électriques et électroniques en fin de vie doivent être éliminés séparément des ordures ménagères.

[Page 55](#) Por favor, ajude-nos a conservar o ambiente em que vivemos! (Italian) Il vostro prodotto SANYO è stato costruito da materiali e componenti di alta qualità, che sono riutilizzabili o riciclabili. Prodotti elettrici ed elettronici portando questo simbolo alla fine dell'uso devono essere smaltiti separatamente dai rifiuti casalinghi.

[Page 56](#) Alstubleift help allen mee om het milieu te beschermen. (Swedish) Din SANYO produkt är designad och tillverkad av material och komponenter med hög kvalitet som kan återvinnas och återanvändas. Denna symbol betyder att elektriska och elektroniska produkter, efter slutanvändande, skall sorteras och lämnas separat från Ditt hushållsavfall.

[Page 57: Low Humidity Mode](#)

In this case, take out the drain pipe from the port and drain the water to a container or bucket. Port for drain pipe Consult Sanyo sales representative or agent when using the drain pipe.

[Page 58: Performance Data](#)

PERFORMANCE DATA (°C) Ambient temperature (□our) Time Graph 1 Chamber temperature pull-down and pull-up characteristics Maximum heat load tolerable in chamber □W□ ① ② (°C□ Ambient temperature Graph 2 Relation between chamber heat load and attainable chamber temperature ①Temperature reached, in chamber, 0 ②Temperature reached, in chamber, -10 ※...

[Page 59: Specifications](#)

SPECIFICATIONS Name Cooled Incubator Model MIR-554 External dimensions W800 x D832 x H1810 (mm) W31.50 x D32.76 x H71.26 (inch) W640 x D550 x H1160 (mm) Internal dimensions W25.20 x D21.65 x H45.67 (inch) Effective capacity 406 L (14.33 c.f.)

[Page 60: Performance](#)

PERFORMANCE Model MIR-554 Note:1 Control range -10~+60 C □ambient temp.□+5~+35 C□no load□ Temperature fluctuation ±1.5 C ON-OFF control □set□5°C□ambient temp□20°C□no load□ ±0.2 C PID control □set□50°C□ambient temp□20°C□no load□ Temperature uniformity ±0.5 C □set□37 C□ambient temp.□20 C□no load□ Noise level 45 dB (A scale)

[Page 61: Safety Check Sheet](#)

Procedure to be adhered to in order to reduce safety risk indicated in b) below. Date : Signature : Address, Division : Telephone : Product name: Model: Serial number: Date of installation: Cooled Incubator MIR-554 Please decontaminate the unit yourself before calling the service engineer.

[Page 62](#) 7FB6P10155800 (18 December 2009) 5-5, Keihan-Hondori 2-Chome Moriguchi City, Osaka 570-8677 Japan Printed in Japan...