Lybunair T58D

Lybunair NJty T58D Digital Multimeter User Manual

Model: T58D

1. Introduction

The Lybunair NJty T58D is a portable digital multimeter designed for accurate measurement of AC/DC voltage, AC/DC current, frequency, resistance, capacitance, and diodes. It is equipped with a large 60,000-count LCD display with backlight for clear readings in various environments. This instrument is suitable for household electrical troubleshooting, automotive diagnostics, and general electronic testing.
This manual provides essential information for the safe and effective operation of your NJty T58D Digital Multimeter. Please read it thoroughly before use and retain it for future reference.

2. Safety Information

To ensure safe operation and service of the meter, follow these instructions:

- Always adhere to local and national safety codes.
- Do not use the meter if it appears damaged or if the insulation on the test leads is compromised.
- Verify the meter's operation by measuring a known voltage or current before use.
- Do not apply more than the rated voltage, as marked on the meter, between the terminals or between any terminal and earth ground.
- Use caution when working with voltages above 60V DC or 30V AC RMS, as these pose a shock hazard.
- Remove test leads from the circuit before changing functions or ranges.
- Replace the battery as soon as the low battery indicator appears to avoid incorrect readings.
- Do not operate the meter in explosive gas, vapor, or dust environments.
- Keep fingers behind the finger guards on the test probes during measurements.

This meter is rated 600V CAT III and 1000V CAT II. Pollution Degree 2. Altitude: less than 2000m.

3. Package Contents

Upon unpacking, please verify that all items listed below are present and undamaged:

- 1 x NJty T58D Digital Multimeter
- 1 x Pair of Test Leads
- 1 x Thermocouple (for temperature measurement)
- 1 x Canvas Bag
- 1 x User Manual (English)

4. Product Overview

Familiarize yourself with the components of your NJty T58D Digital Multimeter:

Figure 4.1: Front view of the NJty T58D Digital Multimeter with key components labeled. Labels include LED Display, NCV Sensing Area, Illumination, NCV and Buzzer Indicator Light, Peak to Peak Measurement, Maximum and Minimum Switching, Data Hold/Relative Value Measurement, Range Switching Button, Functions Switch Button, Lighting/Backlight, Gear Rotary Switch, μA mA L (Inductance) Input Socket, 10A Input Socket, VΩHz°C Input Socket, and COM Input Socket.

Figure 4.2: Physical dimensions of the NJty T58D Digital Multimeter, showing approximate measurements of 187mm (7.36in) in height, 95mm (3.74in) in width, and 55mm (2.16in) in depth.

Figure 4.3: Rear view of the multimeter highlighting the 90-degree adjustable stand for convenient viewing and integrated storage slots for test leads, designed for anti-fall and anti-shock protection.

5. Setup

5.1 Battery Installation

The NJty T58D Multimeter requires 3 x 1.5V AAA batteries (not included) for operation.

1. Ensure the multimeter is turned OFF.
2. Locate the battery compartment cover on the back of the unit.
3. Use a screwdriver to remove the screw securing the battery cover.
4. Carefully remove the cover.
5. Insert three 1.5V AAA batteries, observing the correct polarity (+ and -).
6. Replace the battery cover and secure it with the screw.

5.2 Connecting Test Leads

Always connect the test leads correctly for the desired measurement:

- Insert the black test lead into the "COM" (Common) input jack.

- For most measurements (Voltage, Resistance, Capacitance, Frequency, Diode, Temperature), insert the red test lead into the "VΩHz°C" input jack.
- For current measurements up to 600mA, insert the red test lead into the "µA mA" input jack.
- For current measurements up to 10A, insert the red test lead into the "10A" input jack.

Ensure connections are firm before taking any measurements.

6. Operating Instructions

6.1 Power On/Off and Function Selection

To power on the multimeter, rotate the central gear rotary switch from the "OFF" position to the desired measurement function. To power off, rotate the switch back to "OFF".

6.2 Backlit Screen and Flashlight

Figure 6.1: The multimeter's backlit screen provides clear visibility of readings in low-light conditions. The integrated flashlight illuminates the work area for convenience during night work or in dark spaces.

The large LCD display features a backlight function that automatically adjusts brightness upon power-on, enhancing readability in various lighting conditions. An integrated flashlight is also available to assist with work in dark environments. Use the "Lighting/Backlight" button (labeled with a lightbulb icon) to control

these features.

6.3 NCV (Non-Contact Voltage) Measurement

Figure 6.2: Demonstrates the NCV function, where the top of the multimeter is placed near an AC voltage source to detect its presence without direct contact. The device indicates voltage intensity through visual and audible alerts.

The NCV function allows for non-contact detection of AC voltage, useful for identifying live wires without direct contact.

1. Rotate the rotary switch to the "NCV" position.
2. Place the top of the meter (NCV Sensing Area) near the conductor or electrical outlet you wish to test.
3. If AC voltage is detected, the corresponding signal strength indicator will light up (yellow for low intensity, red for high intensity), and the buzzer will emit different frequency alarms based on the detected voltage strength.

6.4 Automatic Shutdown

Figure 6.3: The multimeter features an automatic shutdown function, turning off after approximately 15 minutes of inactivity to conserve battery life. Any button press will restart the timer.

To conserve battery life, the multimeter features an automatic shutdown function. If there is no operation for approximately 15 minutes after powering on, the device will automatically enter power-saving mode and shut down. Pressing any key will reactivate the multimeter.

6.5 Other Measurement Functions

The rotary switch allows selection of various measurement modes:

- **AC/DC Voltage (V~ / V-):** Measure voltage in circuits.
- **AC/DC Current (A~ / A-):** Measure current flow. Ensure correct input jack selection (μA mA or 10A).
- **Resistance (Ω):** Measure the resistance of components.
- **Capacitance (F):** Measure the capacitance of capacitors.
- **Frequency (Hz):** Measure the frequency of AC signals.
- **Temperature (°C/°F):** Use the provided thermocouple to measure temperature.
- **Diode Test (→|):** Test the functionality of diodes.
- **Continuity Test (Buzzer):** Check for continuity in a circuit, indicated by an audible tone.

Use the "RANGE" button to manually select measurement ranges or allow the meter to auto-range. The

"FUNC" button cycles through sub-functions within a rotary switch position (e.g., AC/DC voltage, diode/continuity).

T58D Parameters	
DC Voltage	100mV, 600mV, 1V, 60V, 600V, 1000V
AC Voltage	100mV, 600mV, 1V, 60V, 600V, 750V
DC Current	600 μ A, 6mA, 60mA, 600mA, 6A, 10A
AC Current	600 μ A, 6mA, 60mA, 600mA, 6A, 10A
Frequency	100Hz, 1KHz, 10KHz, 100KHz, 1MHz, 10MHz, 25MHz
Resistance	600Ω, 6kΩ, 60kΩ, 600kΩ, 6MΩ, 60MΩ
Capacitance	6nF, 60nF, 600nF, 6 μ F, 60 μ F, 600 μ F, 6mF, 60mF
Temperature	-50℃~1000℃ / -58℉~1832℉
Diode	√
Buzzer	√
Power Supply	3 * 1.5V AAA batteries (Not included)
Display	60000 Counts

Figure 6.4: The multimeter features a 60,000-count display for high precision. It is capable of measuring Current/Resistance/Capacitance, Temperature/Frequency, and includes a Jack Tip/Flashlight/Backlight for enhanced usability.

7. Specifications

The following table outlines the technical specifications for the NJty T58D Digital Multimeter:

Figure 7.1: Detailed technical specifications for the NJty T58D Multimeter, including measurement ranges for DC Voltage, AC Voltage, DC Current, AC Current, Frequency, Resistance, Capacitance, Temperature, Diode, Buzzer, Power Supply, and Display Counts.

NJty T58D General Specifications

Parameter	Value
Model	T58D
Material	ABS
Safety Rating	600V CAT III, 1000V CAT II
Pollution Degree	2
Altitude	< 2000m
Operating Temperature	0-40 °C
Storage Temperature	-10 ~ 60 °C
Dimensions	187 x 95 x 55 mm
Item Weight	331 g

Parameter	Value
Power Supply	3 * 1.5V AAA batteries (not included)
Display Counts	60,000
Manufacturer Model Number	Lybunair5skhu9y6tr-2D

8. Maintenance

8.1 Cleaning

Wipe the meter with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the meter is completely dry before use.

8.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries immediately to ensure accurate readings. Refer to Section 5.1 for battery installation instructions.

8.3 Fuse Replacement

If the current measurement function fails, the fuse may need replacement. This procedure should only be performed by qualified personnel. Refer to the internal diagram for fuse specifications and location. Always replace with a fuse of the same type and rating.

9. Troubleshooting

If you encounter issues with your multimeter, refer to the following common troubleshooting steps:

Common Troubleshooting

Problem	Possible Cause	Solution
No display or faint display	Dead or low batteries; Incorrect battery installation.	Replace batteries (Section 5.1); Check battery polarity.
Incorrect readings	Incorrect function/range selected; Loose test leads; Low battery.	Ensure correct function/range; Reconnect test leads firmly; Replace batteries.
Current measurement not working	Blown fuse; Incorrect input jack.	Check/replace fuse (Section 8.3); Ensure red lead is in µA mA or 10A jack.
NCV not detecting voltage	Too far from source; Source is DC voltage.	Move closer to the AC voltage source; NCV only detects AC voltage.

If the problem persists after attempting these solutions, please contact customer support.

10. Warranty and Support

This product is covered by a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided at the time of purchase or contact your retailer.
For technical support, service, or inquiries regarding your Lybunair NJty T58D Digital Multimeter, please contact the seller or manufacturer through their official channels. Please have your model number (T58D)

and purchase information ready when seeking support.