

LV 7770-01
REMOTE CONTROLLER

INSTRUCTION MANUAL

TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1	Scope of Warranty	1
1.2	Power Supply Voltage.....	1
1.3	Trademarks.....	1
2.	SPECIFICATIONS	2
2.1	General	2
2.2	Features.....	2
2.3	Specifications.....	2
2.3.1	Control	2
2.3.2	Panel	3
2.3.3	Rear Connectors.....	3
2.3.4	General Specifications	3
3.	NAMES AND FUNCTIONS OF PARTS	4
4.	PROCEDURE.....	5
4.1	Configuring the LV 5770/7770	5
4.1.1	Checking the Version (LV 5770 only).....	5
4.1.2	Setting the IP Address and TELNET	6
4.2	Configuring the LV 7770-01	7
4.2.1	Factory Default Settings	7
4.2.2	Configuring the LV 7770-01 from a PC	8
4.2.3	Configuring the LV 7770-01 from the LV 5770/7770	9
4.3	Control	10

1. INTRODUCTION

Thank you for purchasing this LEADER instrument. To use this instrument safely, read this instruction manual thoroughly, and make sure that you know how to use the instrument properly.

If some point about the operation of this instrument is still unclear after you have read this instruction manual, refer to the contact information on the back cover of the manual to contact LEADER, or contact your local LEADER agent.

After you have finished reading this manual, keep it in a convenient place so that you can refer to it when necessary.

1.1 Scope of Warranty

This LEADER instrument has been manufactured under the strictest quality control guidelines.

LEADER shall not be obligated to furnish the following free services during the warranty period.

1. Repair of malfunction or damages resulting from fire, natural calamity, or improper voltage applied by the user.
2. Repair of an instrument that has been improperly repaired, adjusted, or modified by personnel other than a factory-trained LEADER representative.
3. Repair of malfunctions or damages resulting from improper use.
4. Repair of malfunctions caused by devices other than this instrument.
5. Repair of malfunctions or damages without the presentation of a proof of purchase or receipt bill for the instrument.

This Warranty is valid only in Japan.

1.2 Power Supply Voltage



WARNING

Confirm the voltage of the commercial power source before you connect the power plug. The operating voltage range of this instrument is 90 to 250 V. Only use a power source that supplies a voltage within the operating voltage range and has a frequency of 50/60 Hz.

1.3 Trademarks

The company and product names in this document are trademarks or registered trademarks of their respective holders.

2. SPECIFICATIONS

2.1 General

The LV 7770-01 can be connected to the Ethernet port on the rear panel of the LV 5770/7770 and used to control the LV 5770/7770 remotely. You can control the LV 5770/7770 remotely using the same panel operations that you would use to control it normally.

2.2 Features

- **Control over the Ethernet**

The LV 7770-01 makes long-distance remote control over the Ethernet possible.

- **Identical Operations Synchronized to the LV 5770/7770 Panel**

You can perform the same operations using the LV 7770-01 that you can perform using the LV 5770/7770 panel. You can use the LV 7770-01 as if you have the LV 5770/7770 panel right in front of you. Also, the operations that you perform affect the LV 5770/7770 immediately.

* The TELNET features of the LV 7770-01 and LV 5770/7770 cannot be used simultaneously.

2.3 Specifications

2.3.1 Control

Supported Models	LV 5770, LV 7770
Connection	Telnet communication over Ethernet (DHCP is not supported.)
Function	Controls the LV 5770/7770 by sending control codes. Shows LED indications based on LED data received from the LV 5770/7770.
Connection Settings	
Settings	IP Address Subnet Mask Default Gateway Destination IP Address
Setting Method	Set from a PC application (included with the LV 7770-01) Set from the connected LV 5770/7770
Factory defaults	Hold down V POS and H POS while turning on the power.
IP Address	192.168.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
Destination IP Address	192.168.0.1

2. SPECIFICATIONS

2.3.2	Panel	
	Key LEDs	<p>All LEDs are lit dimly. The LED of the selected key is lit brightly. (All the LEDs are off when the LV 5770/7770 is off.)</p>
	Power LED	Lights when the LV 7770-01 is on.
	Ethernet LED	<p>Lights when a connection has been established between the LV 7770-01 and the appropriate LV 5770/7770.</p>
2.3.3	Rear Connectors	
	Ethernet Port	
	Compliant Standard	IEEE802.3
	I/O Connector	RJ-45
	Function	Sends key codes and receives LED data
	Type	10Base-T/100Base-TX
	USB Port	Type B
	Specification	USB 2.0
	Function	Used to set the IP addresses.
2.3.4	General Specifications	
	Environmental Conditions	
	Operating Temperature	0 to 40 °C
	Operating Humidity	85 % RH or less (no condensation)
	Operating Environment	Indoors
	Operating Altitude	Up to 2,000 m
	Overvoltage Category	II
	Pollution Degree	2
	Power Requirements	
	Voltage	90 to 250 VAC
	Frequency	50/60 Hz
	Power Consumption	8 W max.
	Dimensions	482 (W) × 44 (H) × 110 (D) mm (excluding protruding parts)
	Weight	1.2 kg
	Accessories	<p>Power cord 1 Cover/inlet stopper 1 CD-ROM (PC application, instruction manual) 1</p>

3. NAMES AND FUNCTIONS OF PARTS

For explanations of each key, see the LV 5770/7770 instruction manual.

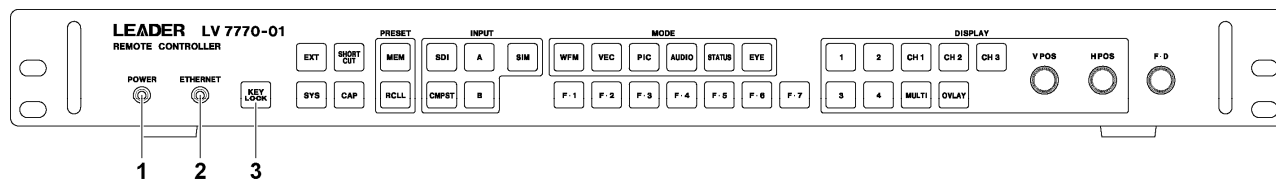


Figure 3-1 Front panel



Figure 3-2 Rear panel

Table 3-1 Names and functions of parts

No.	Name	Function
1	POWER LED	This LED lights when the LV 7770-01 is on.
2	ETHERNET LED	This LED lights when a connection has been established with the LV 5770/7770.
3	KEYLOCK	Holding the key locks the keys or releases the key lock.
4	ETHERNET	After you use this connector to connect to the LV 5770/7770, you can control it remotely. Also, the LV 5770/7770 key operations affect the LV 7770-01.
5	USB	After you use this connector to connect to a PC, you can set the LV 7770-01 IP address and other settings from the PC. Use the PC application that comes with the LV 7770-01 (IPAddressWriter) to configure the settings.
6	Serial number label	The instrument's serial number is printed on this label.
7	Ground terminal	Use this terminal to connect the instrument to an external ground.
8	Power inlet	AC power inlet.

4. PROCEDURE

4.1 Configuring the LV 5770/7770

4.1.1 Checking the Version (LV 5770 only)

To control the LV 5770 from LV 7770-01, the LV 5770 firmware version must be 3.2 or later.

You can check the firmware version in the INFORMATION display or in the startup display. If the firmware version is earlier than 3.2, remote control is not possible. Contact your nearest LEADER agent.

SYS → **F•3** SYSTEM INFO →

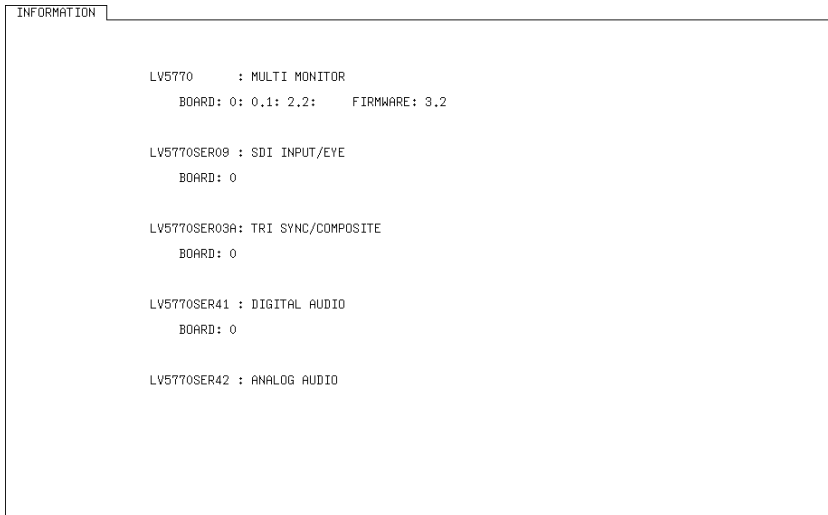


Figure 4-1 INFORMATION display

4. PROCEDURE

4.1.2 Setting the IP Address and TELNET

To set the LV 5770/7770 IP Address in the ETHERNET display, follow the procedure below.

1. Press **SYS** → **F•2** **SYSTEM SETUP** → **F•3** **NEXT TAB**.

The ETHERNET SETUP display appears.

GENERAL SETUP	ETHERNET SETUP	REMOTE SETUP	DATE&TIME
Ethernet Select <input type="checkbox"/> DHCP <input checked="" type="checkbox"/> IP			
TCP / IP			
IP Address	192	168	0 1
Subnet Mask	255	255	255 0
Default Gateway	0	0	0 0
SNTP Client Select <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ON			
Server IP Address	0	0	0 0
Time Zone Adjust	+	9	0 [+/- hour : minutes]
TELNET Server Select <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ON <input type="checkbox"/> LV7770-01			
FTP Server Select <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ON			
HTTP Server Select <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ON			
SNMP READ <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ONLY <input type="checkbox"/> WRITE			
SNMP TRAP <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ON			
MAC ADDRESS: 00:00:00:00:00:00			

Figure 4-2 ETHERNET SETUP display

2. Set Ethernet Select to IP, and then set the IP address.

The LV 5770/7770 factory default IP address is 192.168.0.1. If you use the factory default settings for the LV 7770-01 and the LV 5770/7770, you do not have to perform the operations in section 4.2, "Configuring the LV 7770-01." Use the factory default settings if you want to connect the LV 5770/7770 and the LV 7770-01 in a one-on-one connection.

If you want to connect multiple LV 5770/7770s and control them alternately or if you want to set a specific IP address, change the values here.

3. Set TELNET Server Select to LV7770-01.

The TELNET features of the LV 7770-01 and LV 5770/7770 cannot be used simultaneously.

4. Press **F•1** **COMPLETE**.

The settings are confirmed, and the system menu appears.

5. Restart the LV 5770/7770.

The Ethernet settings are valid after you restart the LV 5770/7770. You do not need to restart the LV 5770/7770 if you did not change any values in step 2.

4.2 Configuring the LV 7770-01

Before you connect the LV 7770-01 to the LV 5770/7770, you need to configure the following settings.

- IP Address
- Subnet Mask
- Default Gateway
- Destination IP Address

You can configure these settings from a PC using the PC application that comes with the LV 7770-01, or you can configure them from the LV 5770/7770 if a connection has been established between the LV 7770-01 and the LV 5770/7770.

If the LV 5770/7770 IP address is set to 192.168.0.1 and the LV 7770-01 is set to its factory default settings, you do not need to configure the settings in this chapter. Proceed to section 4.3, “Control.”

4.2.1 Factory Default Settings

The LV 7770-01 factory default settings are listed below.

Table 4-1 Factory default settings

Item	Factory Default
IP Address	192.168.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
Destination IP Address	192.168.0.1

To return the LV 7770-01 to its factory default settings, turn it on while holding down V POS and H POS.

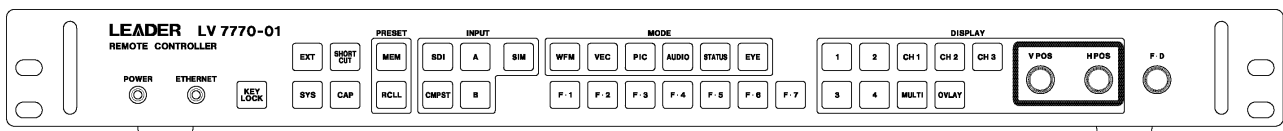


Figure 4-3 V POS and H POS

4.2.2 Configuring the LV 7770-01 from a PC

To set the IP addresses of the LV 7770-01 from a PC, follow the procedure below. You will need the following items to set the IP addresses.

Table 4-2 Necessary Items for Setting the IP Addresses

Item	Notes
LV 7770-01	—
PC application	Comes with the LV 7770-01
PC	Windows XP or Vista, CD-R drive
USB cable	USB (A) male - USB (B) male

1. Use a USB cable to connect the LV 7770-01 to the USB port of a PC.
2. Turn on the LV 7770-01.

The LV 7770-01 does not have a power switch. Connect the power cord.

3. Insert the included CD into the PC, and start IpAddressWriter.exe.

The IP Address Writer PC application starts.

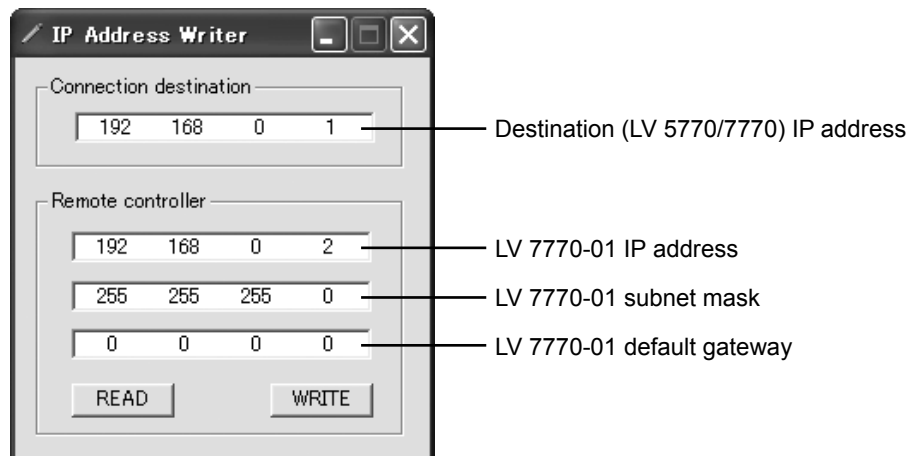


Figure 4-4 IP Address Writer

4. Enter the various values, and then click WRITE.

You can load the current settings of the LV 7770-01 by clicking READ.

4.2.3 Configuring the LV 7770-01 from the LV 5770/7770

If a connection has been established between the LV 7770-01 and the LV 5770/7770, you can set the IP address of the LV 7770-01 from the LV 5770/7770. However, note that when the IP address settings are changed, the connection between the LV 7770-01 and the LV 5770/7770 is closed. Set the IP address in this manner in situations such as when you want to connect to multiple LV 5770/7770s and switch between them.

To set the IP address of the LV 7770-01 from the LV 5770/7770, follow the procedure below when the ETHERNET LED of the LV 7770-01 is lit.

1. Press **SYS** → **F•2** **SYSTEM SETUP** → **F•2** **PREV TAB**.

The LV 7770-01 display appears. This display will not appear if a connection has not been established between the LV 7770-01 and the LV 5770/7770.

LV7770-01 Connection Change

Remote Controller ☒ OFF ☐ ON

LV7770-01

IP Address

Subnet Mask

Default Gateway

Connection Destination ☒ OFF ☐ ON

Other LV5770/7770

IP Address

Figure 4-5 LV7770-01 display

2. Enter the various values.

The Remote Controller settings are the address settings for the LV 7770-01. The Connection destination settings are the settings for the LV 5770/7770 that you want to connect to. If you select an OFF check box, the settings beneath it are not sent. If you only want to change one set of settings, select the OFF check box above the set of settings that you do not want to send. In the factory default settings, both of the OFF check boxes are selected.

3. Press **F•1** **COMPLETE**.

The settings are applied when you press **F•1** **COMPLETE**. You cannot change the settings from the LV 5770/7770 again if there is no LV 5770/7770 for the LV 7770-01 to connect to at the newly specified address. If you specify the wrong values, you have to set the LV 7770-01 from a PC.

4.3 Control

To use the LV 7770-01 to control the LV 5770/7770 remotely, follow the procedure below.

1. Turn on the LV 7770-01 and the LV 5770/7770.

The LV 7770-01 does not have a power switch. Connect the power cord. The POWER LED lights when you turn the LV 7770-01 on.

2. Connect the Ethernet ports of the LV 7770-01 and the LV 5770/7770 using an Ethernet cable.

The LV 7770-01 does not come with an Ethernet cable. You can use a straight or cross-over cable.

The ETHERNET LED lights when a connection is established between the LV 7770-01 and the LV 5770/7770. If the ETHERNET LED does not light, double-check section 4.1, "Configuring the LV 5770/7770," and section 4.2, "Configuring the LV 7770-01."

After the Ethernet cable is removed, the ETHERNET LED remains on for a while.

- **Control**

You can control the LV 5770/7770 remotely from the LV 7770-01 while the ETHERNET LED is lit.

You can also control the LV 5770/7770 directly. When you do so, the LV 5770/7770 key operations affect the LV 7770-01.

- **Notes**

- You cannot control multiple LV 5770/7770s from a single LV 7770-01 at the same time. (You can connect multiple LV 7770-01s to the LV 5770/7770 and use them at the same time.)
- You cannot connect USB memory or headphones to the LV 7770-01.
- You cannot turn the LV 5770/7770 on and off from the LV 7770-01.
- You can turn the key lock on and off by holding down the KEYLOCK key. Holding down the SYS key produces no effect.
- The key lock feature can be applied separately to the LV 7770-01 and LV 5770/7770. When a key lock is applied on the LV 7770-01, the key mark in the upper right of the screen does not appear.

所含有毒有害物质信息

部件号码: LV 7770-01



此标志适用于在中国销售的电子信息产品, 依据2006年2月28日公布的《电子信息产品污染控制管理办法》以及SJ/T11364-2006《电子信息产品污染控制标识要求》, 表示该产品在使用完结后可再利用。数字表示的是环境保护使用期限, 只要遵守与本产品有关的安全和使用上的注意事项, 从制造日算起在数字所表示的年限内, 产品不会产生环境污染和对人体、财产的影响。产品适当使用后报废的方法请遵从电子信息产品的回收、再利用相关法令。详细请咨询各级政府主管部门。

产品中有毒有害物质或元素的名称及含量

部件名称 Parts	有毒有害物质或元素 Hazardous Substances in each Part					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
实装基板	×	○	○	○	○	○
主体部	×	○	○	○	○	○
开关电源	×	○	○	○	○	○
外筐	○	○	○	○	○	○
线材料一套	○	○	○	○	○	○
附件	○	○	○	○	○	○
包装材	○	○	○	○	○	○
备注) ○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 规定的限量要求以下。 ×: 表示该有毒有害物质或元素至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。						

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