Instruction manual

MODEL R4K-80 series

-LEt option

Matsusada Precision

B/N 094.9.142 Rev. 0.1

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1. Introduction

1-1 Greeting

Thank you very much for adding -LEt option to our product.
We have done our best for our quality control of our products. Please handle this unit properly according to this instruction manual so that you can use the full capacity of this unit and operate it safely and smoothly in high efficiency for long. If, however, you find any doubtful or unknown point or omission in the instruction manual, please contact us.

1-2 Summary of –LEt option Greetin

-LEt option comes with the digital communication interface for Matsusada power supplies that is directly connected to the network to connect Matsusada power supplies. Therefore it enables to locate the power supply on the network, and no separate interface is needed to control it.

1-3 LAN connector

Connect with RJ45 (10BASE-T, 100BASE-T)

1-4 Network setting

Follow the instruction of Network administrator to set the LAN setting of the unit.

Default setting				
IP address	192	168	010	001
Subnet mask	255	255	255	000
Default gateway	000	000	000	000
Remote port number	10001			

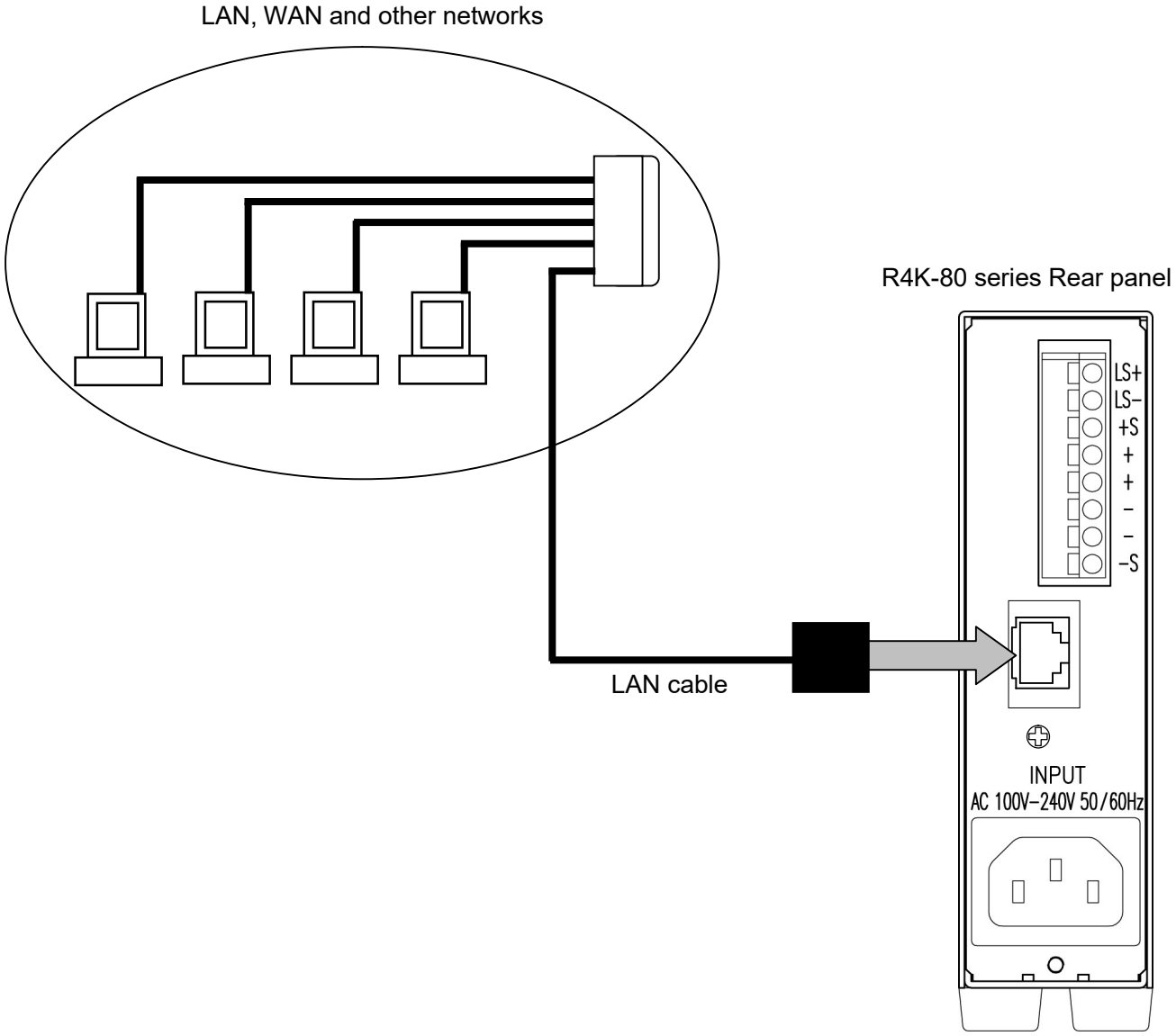
*The fixed remote port number is 10001.

1-5 Precautions for network setting

The -LEt option employs Xport® manufactured by LANTRONIX for the LAN module. The –LEt option setting of the Matsusada power supply is made at the power supply unit itself.
If you use “Web Manager” in Xport® for changing, the configuration setting through the power supply will not be reflected correctly.
Note that we do not provide any support for the setting change using “Web Manager” or procedures of configuration and operation other than those described in this instruction manual.

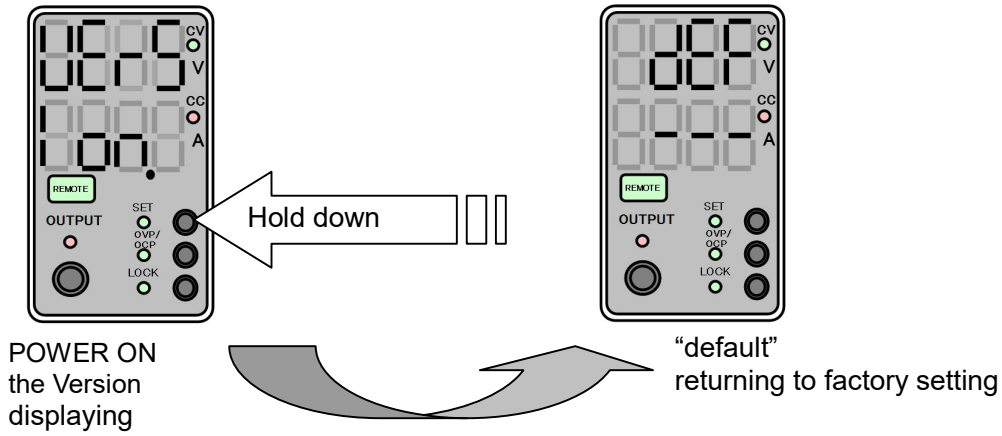
2. How to Use

2-1 Connection example of R4K-80 -LEt option

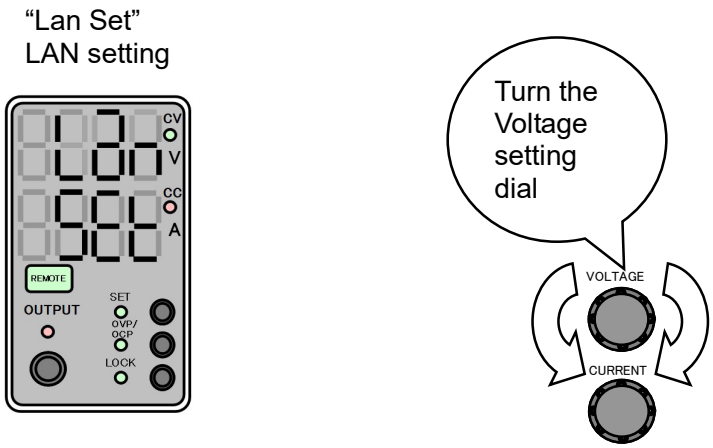


2-2 Network address setting

The network setting of –LEt option is set on start-up menu.
Turn the POWER switch ON of the unit and hold down the SET switch while the Version displaying.
The display switches will switch to “dEF”.

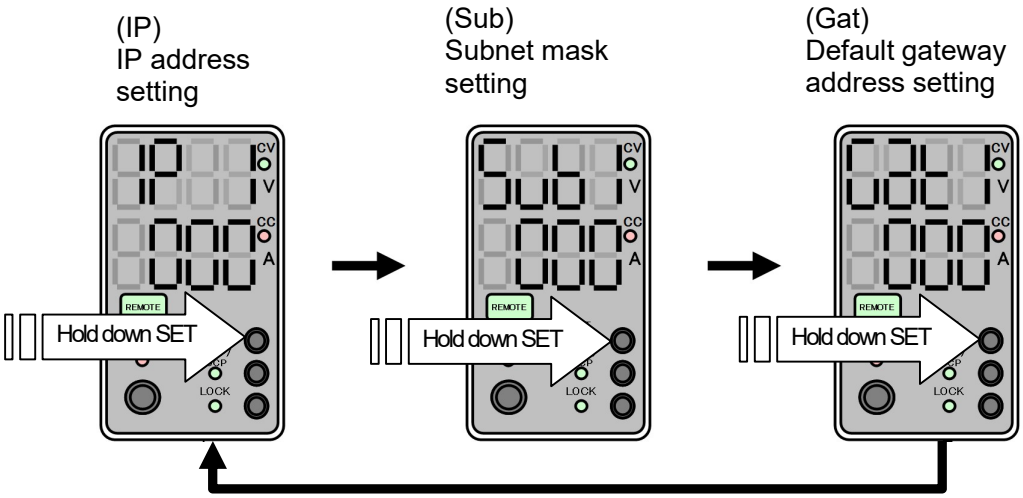


1. To change the menu display, turn the Voltage setting dial.
   When you want to set the network address, turn the Voltage setting dial until “Lan SEt” appears.



2. SET switch (Press/Hold down)

Press the SET switch to display either IP Address setting (IP), Subnet mask setting (Sub), or Default gateway setting (Gat). To switch these settings, hold down the SET switch. Each time you hold down the switch, the setting switches display will be switch from IP address setting (IP), Subnet mask setting (SUB), Default gateway setting (Gat).



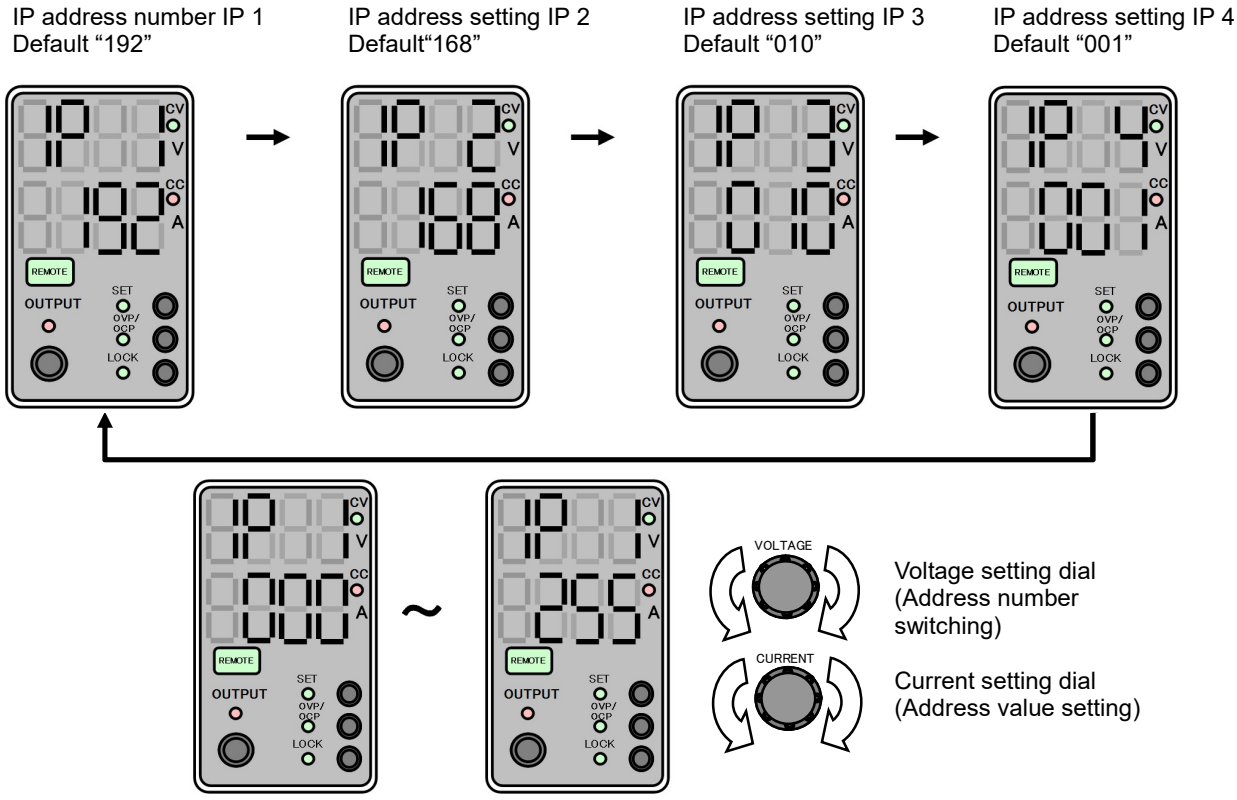
A) IP address setting

When “IP” appears, “IP”, IP address can be set

To change the address number, turn the Voltage setting dial.

Address No.	IP 1	IP 2	IP 3	IP 4
Default	192	168	010	001

Each address of the IP address number 1 to 4 is to be set at 0 to 255 using the Current setting dial.



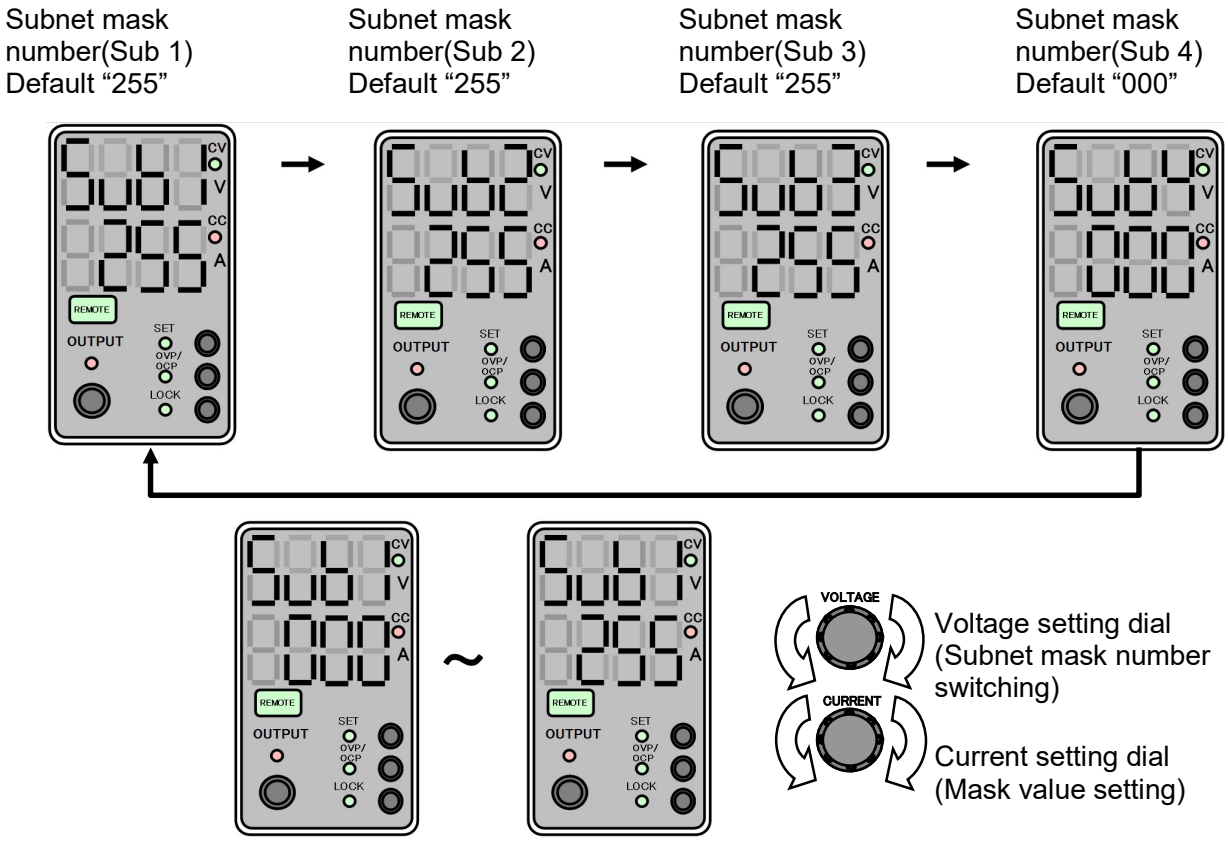
B. Subnet mask setting

Subnet mask can be set while it displays “Sub” on the front panel.

By turning the Voltage setting dial, the mask number can be set.

Address No.	Sub 1	Sub 2	Sub 3	Sub 4
Default	255	255	255	000

Each Mask value of Mask number 1 to 4 can be set by the Current setting dial.
(000 to 255)



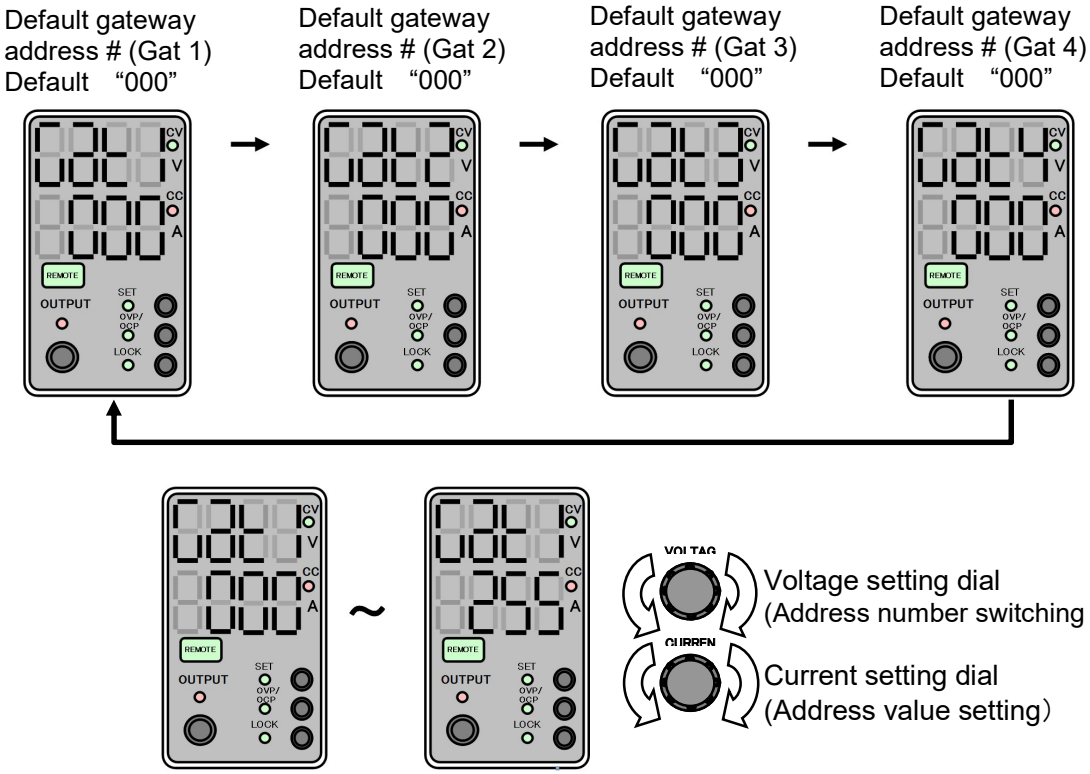
C. Default gateway address setting

Default gateway mask can be set while it displays “Gat” on the front panel.

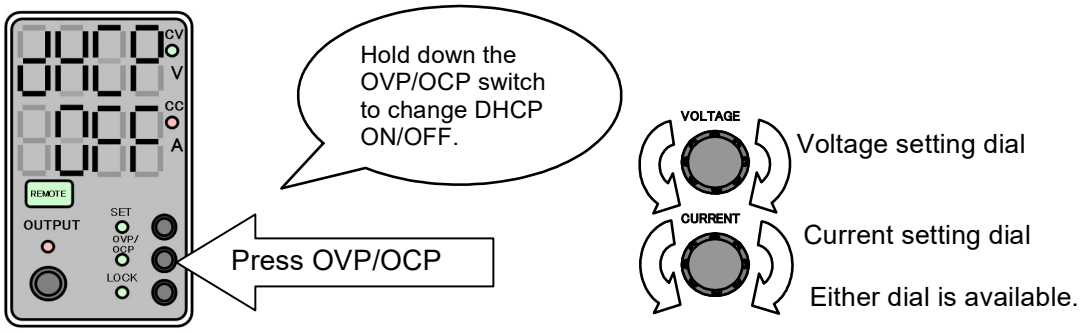
By turning the Voltage setting dial, the address number will be switched and changed.

Default gateway address	Gat 1	Gat 2	Gat 3	Gat 4
Default	000	000	000	000

Each address of address number 1 to 4 can be set by the Current setting dial.
(000 to 255)

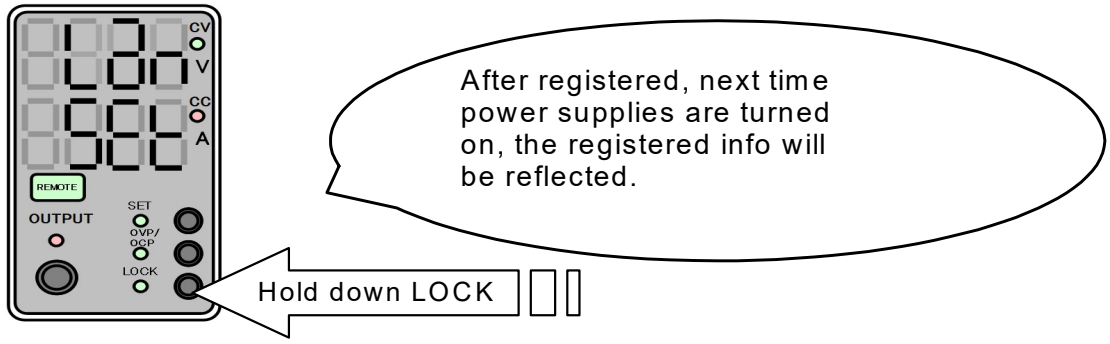


3. OVP/OCP switch (Press)
When OVP/OCP is pressed, DHCP setting (“dHCP”) will be displayed, and ON/OFF switching can be done and DHCP enable/disable can be chosen.



* If DHCP is enabled, IP address/Subnet mask/Default gateway address shall be invalid which are set previously.

4. LOCK switch (Hold down)
Set network address will be registered on power supply itself.
(*Restarting of the power supply is required to effect registered setting. Setting will be reflected when the power supply is turned on next time)

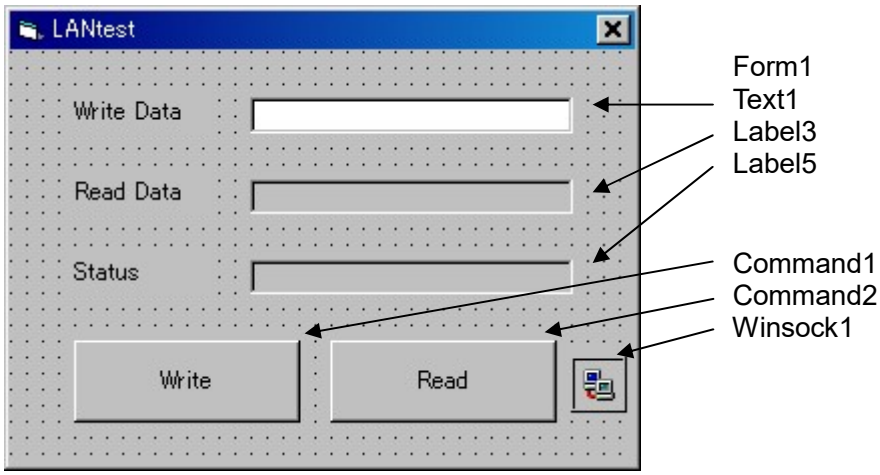


⚠CAUTION	It takes more than ten seconds to complete the startup because the setting is written to the LAN module in turning the unit on. Therefore, if you turn the unit OFF before the startup is completed, the writing will not be finished normally, and the communication may not work properly. In this case, reset it to the factory default or set and write the other value instead of the IP address setting. After that, the setting is to be carried out again. Once you have written the other value, the setting will be performed normally.

3. Sample Program

3-1 VB sample program

Here below is a sample program Visual basic.




```
Dim strReadBuffer As String

Private Sub Form_Load()                          'Form load
    Winsock1.LocalPort = 0                       'Change local port setting to 0
    Winsock1.RemoteHost = "192.168.10.1"         'Remote host is that IP address of power supply is
                                                 assigned.
                                                 Here, set Default “192.168.10.1”
    Winsock1.RemotePort = "10001"                'Assign remote port number as "10001".
    Winsock1.Connect                             'Request for connection
End Sub

Private Sub Command1_Click()                     'When Command1button clicked
    Dim wdata As String

    On Error GoTo ErrorHandler
    Label5.Caption = ""
    wdata = Text1.Text & Chr(&HD)                'Gobble down the word data from Text1.
    Winsock1.SendData wdata                      'Send data to remote computer(Power supply)
    Label5.Caption = "Write OK!"
    Exit Sub
ErrorHandler:
    Label5.Caption = "Write NG!"
End Sub
```

```
Private Sub Command2_Click()                    ‘When Command1button clicked
    Dim rdata As String
    Dim I As Long

    On Error GoTo ErrorHandler
    Label3.Caption = ""
    Label5.Caption = ""
    rdata = ""
    For I = 0 To 30000
        rdata = rdata & strReadBuffer
        strReadBuffer = ""
        If InStr(rdata, vbCr) <> 0 Then          ‘Confirm until carriage return is sent.
            Exit For
        End If
    Next I
    If I > 30000 Then
        GoTo ErrorHandler
    End If
    Label3.Caption = rdata                       'Indicate the data received
    Label5.Caption = "Read OK!"
    Exit Sub
ErrorHandler:
    Label5.Caption = "Read NG!"
End Sub

‘When Winsock1 new data is sent.
Private Sub Winsock1_DataArrival(ByVal bytesTotal As Long)      ‘Winsock1
    Dim rdata As String

    Winsock1.GetData rdata                       ‘Gobble down data
    strReadBuffer = strReadBuffer & rdata        ‘Add gobble downed data to buffer
End Sub

Private Sub Form_Unload(Cancel As Integer)
    Winsock1.Close                               ‘Close Winsock1
End Sub
```

3-2 VC sample program

Below is a sample program of Visual C.

Example of WinSock of Win32API

```
Link “wsock32.lib”
Include “winsock.h”

//Process at formatting
//prepare socket
soc = socket(PF_INET, SOCK_STREAM, 0);
if (soc == INVALID_SOCKET) {                    //socket preparation error
}

//connection process
unsigned long serveradd;
struct sockaddr_in sockaddr;

serveradd = inet_addr((char*)"192.168.10.1");          // Convert address from default IP address of
                                                       power supply.
sockaddr.sin_family = AF_INET;
sockaddr.sin_addr.s_addr = serveradd;                  // Set IP address
sockaddr.sin_port = htons((unsigned short)10001);      // Fix port setting as “10001”
memset(sockaddr.sin_zero, (int)0, sizeof(sockaddr.sin_zero));

if(connect(sock, (struct sockaddr *)&sockaddr, sizeof(sockaddr) ) == SOCKET_ERROR) {
        // Connection error
}

// Sent process
char buf[256];
CString strbuf;

strbuf = "ren¥r";                       // REN command to power supply setting
strcpy(buf, strbuf);

if (send(sock, buf, lstrlen(buf), 0) == SOCKET_ERROR) {         // Send command
        // Send error
}
```

```
// Receive process
// Time out check
fd_set fdset;
timeval timeout;
int res;
timeout.tv_sec = 0;
timeout.tv_usec = 2000;                                  // Set time out time as 2sec
FD_ZERO( &fdset );
FD_SET(sock, &fdset);
res = select(2, &fdset, NULL ,NULL , &timeout);
if (res == 0) {
        // Time out error
        return;
}
else if (res == SOCKET_ERROR) {
        // Socket error
        return;
}

// If time out does not have problems, it will receive.
char buf[256];
int revd_size;
int tmp;
CString strbuf;
revd_size = 0;
tmp = recv(sock, buf, RECVSIZE - 1, 0);                  // Receive process
if (tmp == SOCKET_ERROR) {                               // Error generated(Receive fail)
        // Receive fail
        return;
}
else if (tmp <= 0) {                                     // Socket abort
        // Socket abort
        return;
}
else {
        buf[tmp] = '¥0';                                 // Set NULL at the end of buffer
        strbuf.Format( "%s", buf);
        return;
}
```

Revision History

Rev. No.	Rev. Date	Revision Contents
0.0	2016/02	First edition
0.1	2021/02	Changed Format and revised words.

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