

Operation Manual for Receiver

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Rev. 1.1

MicroTalkSystems Corp.

Contents

| | |
|---|----|
| Power Source of Receiver | 2 |
| External battery | 2 |
| Power cable of accessories..... | 2 |
| Color of LED lamp..... | 3 |
| Measuring clock..... | 4 |
| Time setting..... | 4 |
| < Setting of HH MM SS by manual > | 4 |
| < Time setting by using GPS > | 4 |
| < Time setting by communication command > | 5 |
| < Reservation of time >..... | 5 |
| Display on Receiver Panel and its Operating Procedure | 6 |
| Tuning on the Switch and Getting the System Ready..... | 6 |
| Warning for outstanding volume of File. | 6 |
| Changing Display Modes | 7 |
| Trigger Coil Tuning / Trigge Level Adjustment | 8 |
| < Automatic Tuning > | 8 |
| < Manual Tuning > | 8 |
| PC-ID Setting | 9 |
| Display of own IP Address..... | 9 |
| Data write to USB memory | 10 |
| LED lamp of 'WRITE/LAN' | 11 |
| Input of starter(Gun) | 11 |
| WEB Contents | 12 |
| PC for connecting (In case of connect by cross cable)..... | 12 |
| System Menu | 12 |
| assword Settings..... | 13 |
| System Options..... | 14 |
| < PC-ID/Next File Name > | 15 |
| < Tag Prefix >..... | 15 |
| < GPS Time Offset >..... | 15 |
| < Date/Time > | 15 |
| < Holding Time >..... | 15 |
| < Measure at > | 15 |
| < Serial > | 16 |
| < Network > | 17 |
| < Connections >..... | 17 |
| Received Data List..... | 18 |
| Log File(s) Maintenace(File)..... | 19 |
| File download | 20 |
| File delete | 20 |
| File List..... | 20 |
| Log File(s) Maintenace(PC-ID)..... | 21 |
| File download | 21 |
| File delete | 21 |

Power Source of Receiver

External battery

Connect power source of more than 11.6 V voltage.

When the voltage value of external power source below 11.6V leads to LED lamp on with red color, in this case replace external power source immediately.

(CAUTION: This value of voltage 11.6V used with power cable (1.25 sq, 2m) in standard accessories)

A back-up battery built in receiver which allows for replacing the external power source while taking measurements.

A full charged backup battery allows for 10 minutes of operation, so replace the power source within this time.

(CAUTION: The old battery will allow for a shorter operation time.)

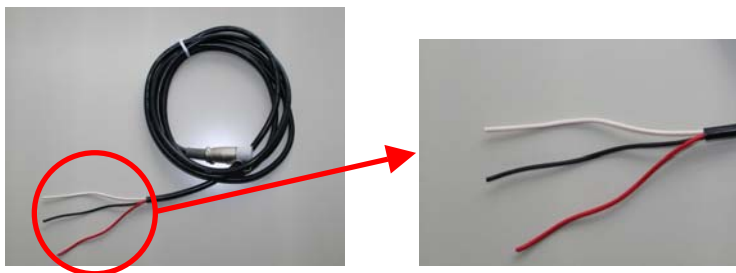
When the "INTT.BAT" LED lamp starts blink with red color, it indicates that the capacity of back-up battery is less than 10.5 V.

In this case, please never operate use with only this back-up battery and connect external power source immediately.

When connected to the external power source with more than 11.7 V and turn on the POWER switch, the back-up battery will charge automatically.

For example, if connect full charged car battery with 28Ah capacity, operating time is about 6 hours. However please take care such battery for use as external battery even full charged because performance of each battery is different by previous status of use each battery.

Power cable of accessories



This cable for external power for the receiver.

The cable consist of three kind of color f conductors

i.e. color is red(Plus +) , black(Minus -) and white (Non connection)

Color of LED lamp

< POWER >

Green : more than 11.6V of voltage value of external battery.

Red : less than 11.6 V of voltage value of external battery.

When voltage around 11.6V, LED lamp blight alternately about green and red color.

< INTT.BAT >

No lighting :

More than 10.5 V of voltage value of back-up battery. (This is normal condition)

Blinking with red color :

less than 10.5 V.

(Connect external power source and re-charge back-up battery immediately.)

Lighting with red color :

Defective of back-up battery. (Replace back-up battery immediately)

Measuring clock

The receiver will become state of “Time set by GPS ” when powered ON.

“Time set by GPS ” means that acquire the time information from GPS and the measuring clock set a time automatically to acquired time by GPS.

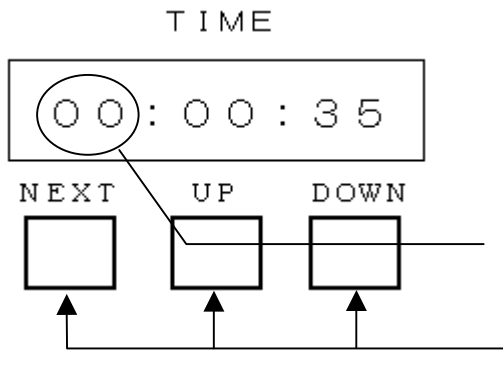
This state will stop by following case.

1. When a measurement was started.
2. When set the time by other method (Refer “Time setting”).

CAUTION : It necessary 10 to 15 minutes for get time information by GPS.
The time information by GPS not available depend on condition of satellite.

Time setting

< Setting of HH MM SS by manual >



Manual Setting mode will be set by pressing ‘NEXT’, ‘UP’, and ‘DOWN’ button simultaneously and the numbers will start to blink.

blinks

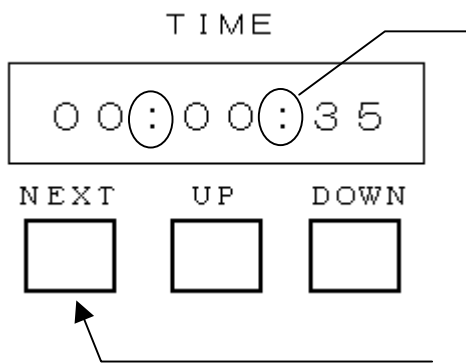
Press 3 buttons simultaneously.

Press the ‘NEXT’ button to change from hour to minutes, then minutes to seconds. Use the ‘UP’ and ‘DOWN’ button to change the time. (The blinking number will indicate the time being set.)

Then after, press ‘NEXT’, ‘UP’ and ‘DOWN’ buttons simultaneously once again to set the time.

If there is no operation for more than one minute in the manual setting mode, the adjusted time will be discarded and goes back to the time display.

< Time setting by using GPS >



‘ : (colon)’ displays will be lighted when it is ready to receive time from the GPS.

If the ‘NEXT’ button is pressed for more than 2 seconds, the GPS time will be set.

‘ : (colon)’ displays will be blinked when it is NOT ready to receive time from GPS.

‘NEXT’ button is pressed for more than 2 seconds,

< Time setting by communication command >

It has command for time setting that specify the time directly.

The details of command, please refer "Communication protocol"

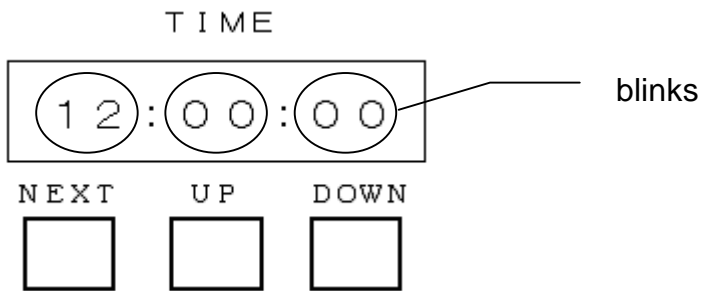
< Reservation of time >

Reserve the time in advance and start of measuring clock by input "Signal of starter.

The receiver make reservations by the time appointed a measurement clock.

when the command of reservation of time "AVxxxxxxxxx.

The part of Hour, Minutes, Second of measuring clock on LCD blink when reservation done and the measuring clock start from reserved time when input signal of starter.

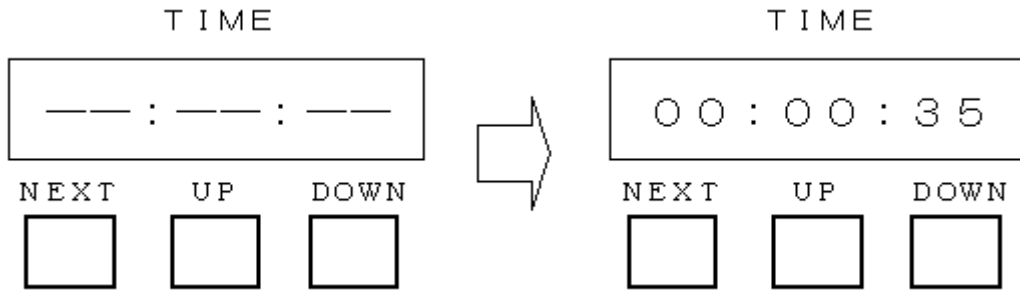


The reserved time cancel when start measurement during time reservation.

CAUTION : Time setting can not be done during measurement.

Display on Receiver Panel and its Operating Procedure

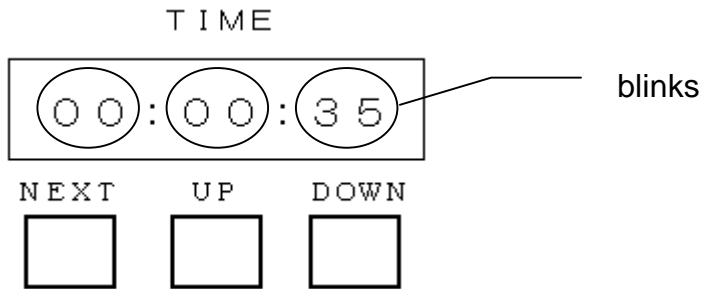
Tuning on the Switch and Getting the System Ready



When the display shows '--:--:--', It indicates that the system is starting up.

Time will be displayed when the System is ready for measuring the time.

Warning for outstanding volume of File.

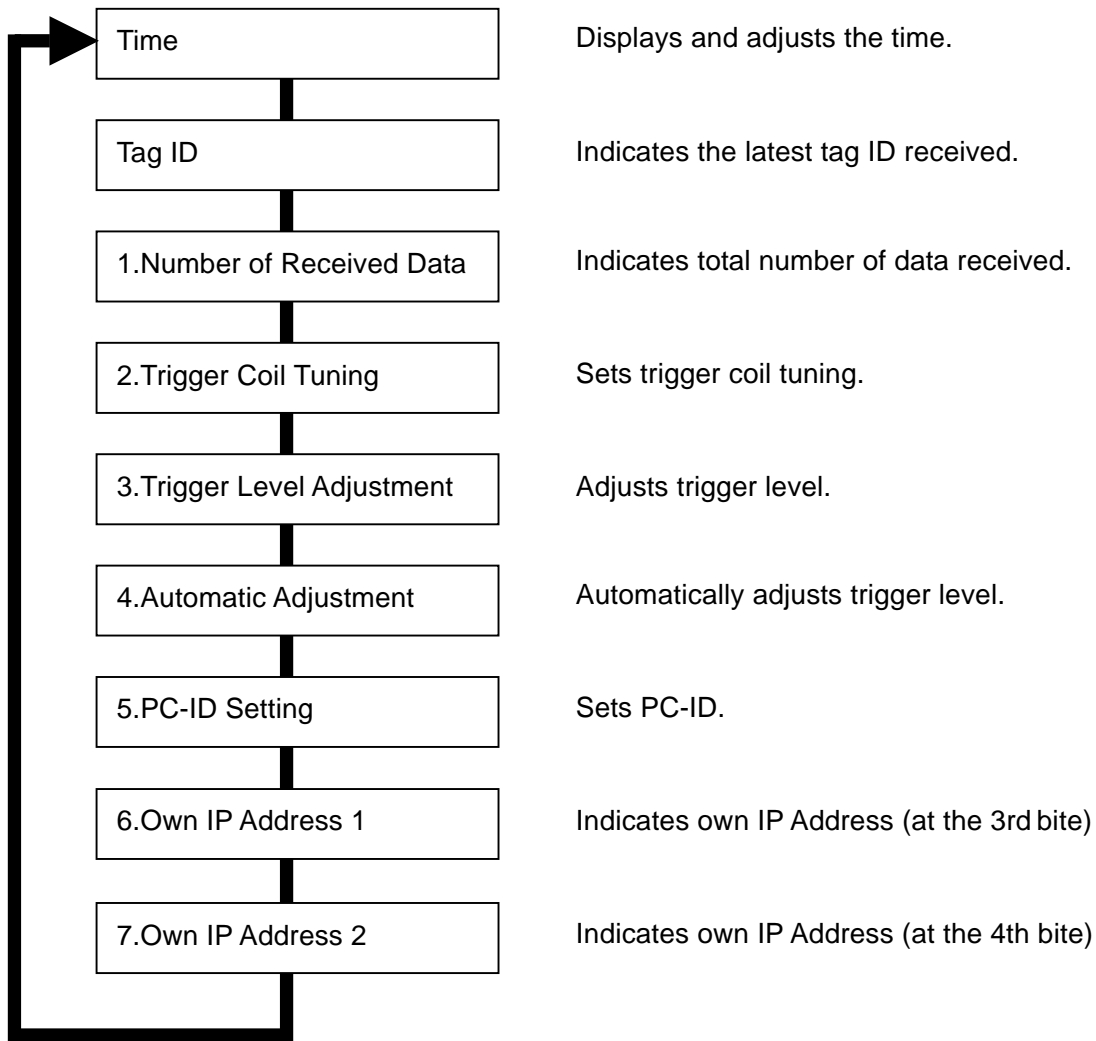


In case that outstanding volume becomes less than 20% upon confirming saving volume of the file after tuning on the switch, it warns by blinking of all figures on the display. The warning will be lifted when outstanding volume of the file surpasses to 20% by operation on WEB page.

It should be noted that you can continue all kinds of operation even under warning conditions.

Changing Display Modes

Indication contents are replaced as follows by pushing a 'NEXT' button.



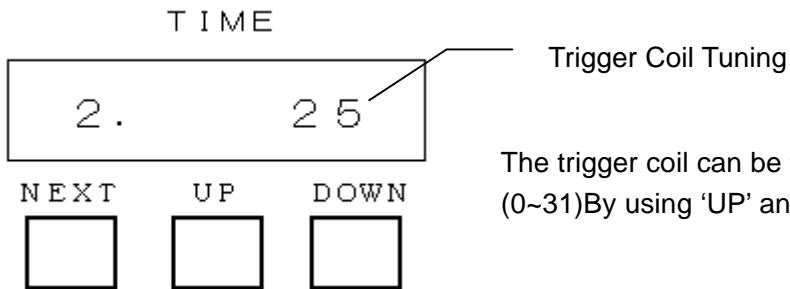
Trigger Coil Tuning / Trigger Level Adjustment

< Automatic Tuning >

Automatic adjustment can be done when trigger output switch is turned on first after starting measuring. Each item can be adjusted manually even during measuring time.

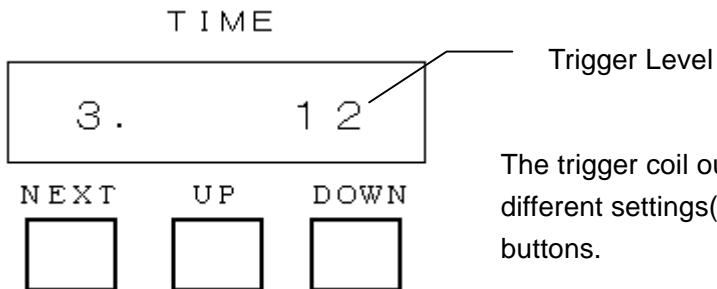
< Manual Tuning >

Trigger Coil Tuning



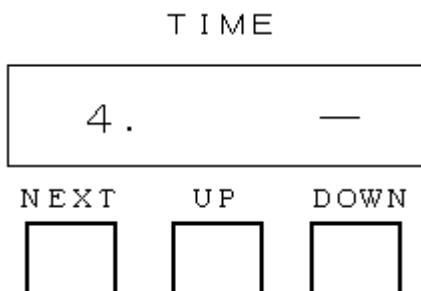
The trigger coil can be tuned to 32 different settings (0~31) By using 'UP' and 'DOWN' buttons.

Trigger Level Adjustment



The trigger coil output level can be adjusted to 16 different settings (0~15) by using the 'UP' and 'DOWN' buttons.

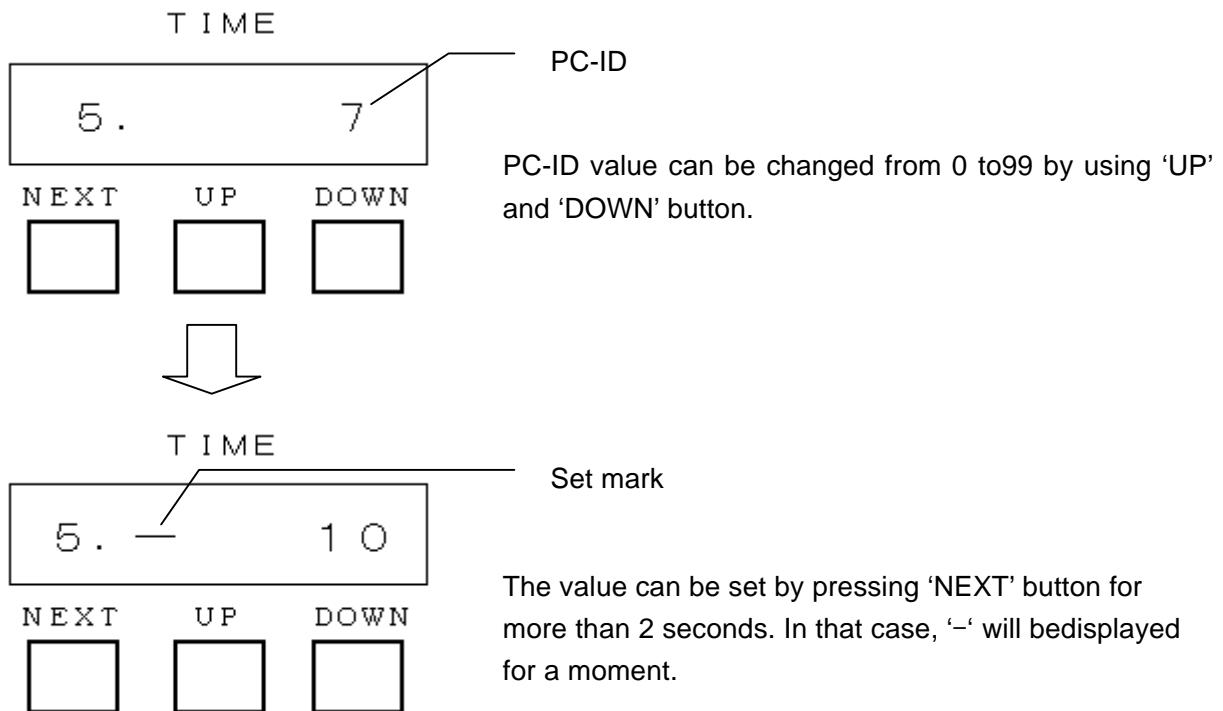
Automatic Level Adjustment



The trigger coil output level can be automatically adjusted to maximum setting by using the 'UP' button.

PC-ID Setting

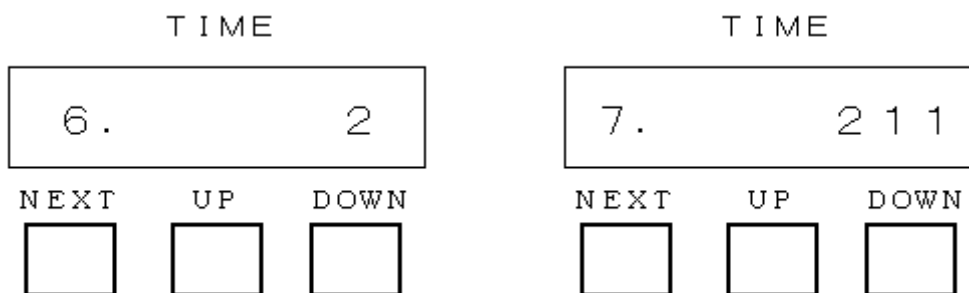
PC-ID cannot be altered during measuring time.



If the NEXT button is not pressed for longer time, the altered values will be discarded and goes back to time display.

Display of own IP Address

2 bites from the end of own IP Address set at display panel '6' and panel '7' shall be displayed. 2 bites from the top of own IP Address are fixed as '192.168.XXX.YYY'.



Above example shows that it is set at '192.168.2.211'.

LED lamp of 'WRITE/LAN'

LED lamp of 'WRITE/LAN' button blinks slowly while receiver is communicating of data with PC via LAN.
(LED lamp does not blink when connect to PC for display of WEB setting.)

Write to USB memory stick available while connecting to LAN

Input of starter(Gun)

The receiver works as follows when input signal from starter.

< Before measurement >

In case of the time already set upped by time reservation command "Avxxxxxxxx",
measuring clock start when input the signal of starter.

< During measurement >

The specific TAG ID i.e. "@SPTIME" record as record data.

This data is similar with normal measured data.

Also the time store in the file for store the input time of starter.

(Store file "Txx.yyy" xx :PC-ID yyy:serial number)

WEB Contents

PC for connecting (In case of connect by cross cable)

A receiver links to PC by Ethernet cable(cross).

The network address of PC set to address of network for receiver

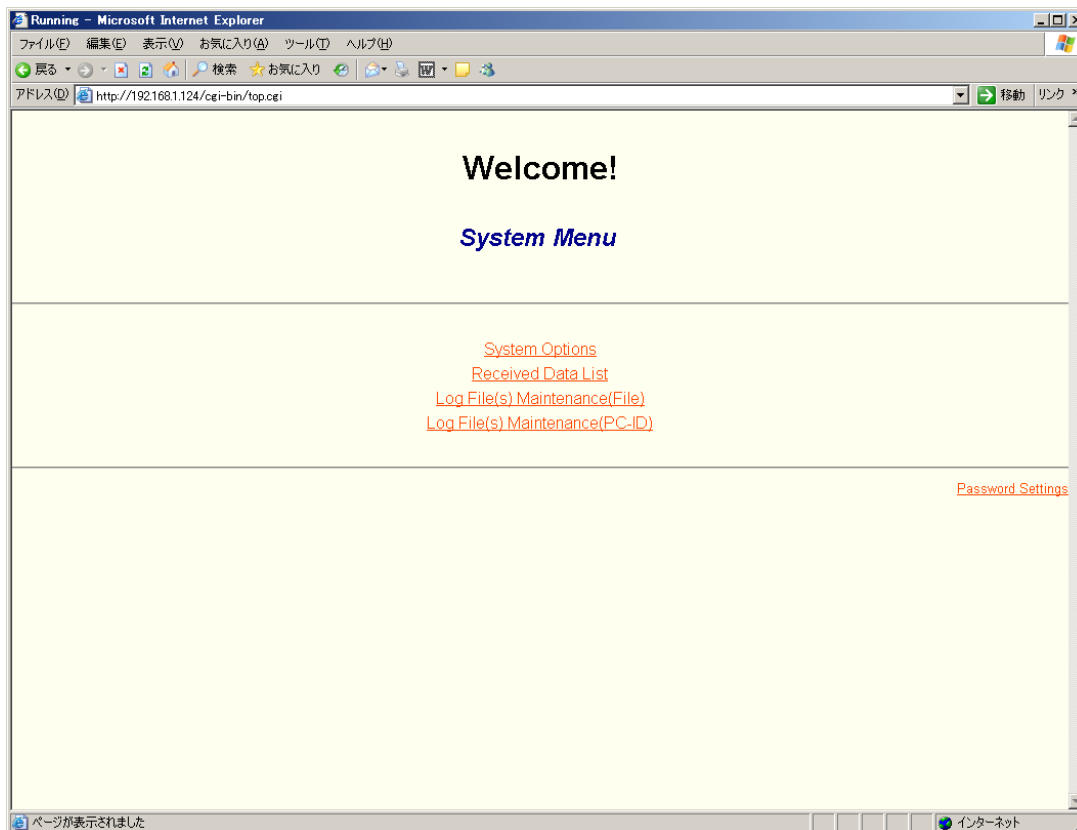
The default initial setting for network as follows.

| | |
|-----------------|---------------|
| IP address | 192.168.2.211 |
| Net mask | 255.255.255.0 |
| Default gateway | 192.168.2.254 |

The IP address of the receiver is changeable and it can confirm LCD on front panel of the receiver.

The low 2 byte of current IP address appear on LCD when select the number “6” and “7” (Refer previous section of “Display of own IP Address “)

System Menu



System Options

Received Data List

Log File(S) Maintenance (File)

Log File(S) Maintenance (PC-ID)

Password Settings

Setting of the receiver

Monitor of receiving data

Manage of log file by each files

Manage of log file by each PC-ID

Setting of password

assword Settings

Click "Password setting " on "System Menu".

Set the password in following menu

The initial setting of password is "1234"

System Menu

[System Options](#)
[Received Data List](#)
[Log File\(s\) Maintenance\(File\)](#)
[Log File\(s\) Maintenance\(PC-ID\)](#)

Password:

Password Setting

| | | |
|------------------------|---|-------------------------------------|
| Password Use | <input type="checkbox"/> Use | <input type="button" value="Save"/> |
| Change Password | Old Password: <input type="text"/> New Password: <input type="text"/> Re-enter Password: <input type="text"/> | <input type="button" value="Save"/> |

Maximum password length is 16 characters,
alphanumeric and case sensitive.

[<< Back](#)

Check to "Use" when use the password

If do not input the password, it can not proceed to next menu from "System menu"

CAUTION : Manage the password strictly and do not forget it.

System Options

Setting of each parameter of the receiver. It is not available during measurement.

Press "Save" of each items then setting parameter enable.

Running - Microsoft Internet Explorer
 ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)
 アドレス http://192.168.2211/cgi-bin/top.cgi

<< Back

System Options

Release Version : 4.01.0 - 2

| | | | |
|--|--|--|-----------------|
| PC-ID | 00 (00-99) | Save | |
| Next File Name | D00.010 | Save | |
| Tag Prefix | A | Save | |
| GPS Time Offset | + 00 : 00 | Save | |
| Date | 05 / 12 / 2007 (dd/mm/yyyy) | Save | |
| Time | 13 : 59 : 18 (hh:mm:ss) | | |
| Holding Time | 0 sec | Save | |
| Measure at | Beginning Time | Save | |
| Serial | Type | <input checked="" type="radio"/> Direct <input type="radio"/> Modem Dial Out <input type="radio"/> Modem Dial In | Save |
| | Baudrate | 9600 | Save |
| | Phone Number | 1234567 | Save |
| | Chat Script (Dial Out) | <pre>TIMEOUT 100 ABORT "BUSY" ABORT "NO CARRIER" ABORT "NO ANSWER" ABORT "NO DIALTONE" ABORT "ERROR" "" AT OK AT&P&C1S0=0</pre> <input type="checkbox"/> Tab key enable (both chat areas) | Save Default |
| Chat Script (Dial In) | <pre>TIMEOUT 10 ABORT "BUSY" ABORT "NO CARRIER" ABORT "NO ANSWER" ABORT "NO DIALTONE" ABORT "ERROR" "" AT OK AT&P&C1S0=1</pre> | Save Default | |
| Network | Device Name | JCHIP-READER | Save (*) |
| | IP Address | 192 . 168 . 2 . 211 | Save (*) |
| | Default Gateway | 192 . 168 . 2 . 254 | |
| | Net Mask | 255 . 255 . 255 . 0 | Save (*) |
| | Listen Port | 54321 (1 - 65535) | |
| (*) Please reboot the receiver to reflect Network setting. Reboot | | | |
| Connections | 0 | Connection Type <input checked="" type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client Remote IP Address 192 . 168 . 2 . 1 Remote Port 12345 (1 - 65535) | Save |
| | 1 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |
| | 2 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |
| | 3 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |
| | 4 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |
| | 5 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |
| | 6 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |
| | 7 | Connection Type <input type="checkbox"/> Use <input type="checkbox"/> TCP Server <input checked="" type="checkbox"/> TCP Client | Save |

<< Back

ページが表示されました

< PC-ID/Next File Name >

| | | |
|-----------------------|------------|------|
| PC-ID | 00 (00-99) | Save |
| Next File Name | D00.010 | |

To Set of PC-ID of the receiver. "PC-ID" can set in ranges from "00" to "99"

The name of file which file is store of measuring data when start of next measurement display at "Next File Name".

< Tag Prefix >

| | | |
|-------------------|---|------|
| Tag Prefix | A | Save |
|-------------------|---|------|

The specified letter at this menu add to top of tag ID read by the receiver

It can set in ranges of from "A" to "Z"

Example: TAG ID 123456 Tag Prefix A A123456

< GPS Time Offset >

| | | |
|------------------------|-----------|------|
| GPS Time Offset | + 00 : 00 | Save |
|------------------------|-----------|------|

To set the offset value of time in current country from GMT

The time from GPS shift to correct time by offset value.

< Date/Time >

| | | |
|-------------|-----------------------------|------|
| Date | 05 / 12 / 2007 (dd/mm/yyyy) | Save |
| Time | 13 : 59 : 18 (hh:mm:ss) | |

To Set of time of system clock. Set the current time.

< Holding Time >

| | | |
|---------------------|-------|------|
| Holding Time | 0 sec | Save |
|---------------------|-------|------|

To set time for ignore the same Tag ID.(From 0 – 60 second)

Even the same Tag ID comes during time appointed in this item, the receiver is not read it.

This function is not available when setting of time is "0"

< Measure at >

| | | |
|-------------------|----------------|------|
| Measure at | Beginning Time | Save |
|-------------------|----------------|------|

To set of timing of measurement

Both "Beginning Time Time" and "Mid Time" are available.

Beginning Time The time data measure when this was in the trigger area.

Mid Time The time data measure by calculation to middle point from two kind of data. i.e. J-chip tag is in the trigger area and it is out from this area

< Serial >

| | | | |
|---------------|-------------------------------|---|-----------------|
| Serial | Type | <input checked="" type="radio"/> Direct <input type="radio"/> Modem Dial Out <input type="radio"/> Modem Dial In | Save |
| | Baudrate | 9600 | Save |
| | Phone Number | 1234567 | Save |
| | Chat Script (Dial Out) | <pre>TIMEOUT 100 ABORT "BUSY" ABORT "NO CARRIER" ABORT "NO ANSWER" ABORT "NO DIALTONE" ABORT "ERROR" "" AT OK AT&F&C1S0=0</pre> <input type="checkbox"/> Tab key enable (both chat areas) | Save Default |
| | Chat Script (Dial In) | <pre>TIMEOUT 10 ABORT "BUSY" ABORT "NO CARRIER" ABORT "NO ANSWER" ABORT "NO DIALTONE" ABORT "ERROR" "" AT OK AT&F&C1S0=1</pre> | Save Default |

Type

Choose connection method of serial port.

Remove any connection from serial port when change connection method.

(Especially, if change the method during connection, modem generate error.)

Baudrate

Select communication speed of serial port.

Phone Number

Specify telephone number with dial-out.

Chat Script(Dial Out)

Chat Script for dial-out. Change it if necessary.

Chat Script(Dial In)

Chat Script for dial-in. Change it if necessary.

< Network >

| | | | |
|--|-----------------|---------------------|----------|
| Network | Device Name | JCHIP-READER | Save (*) |
| | IP Address | 192 . 168 . 2 . 211 | Save (*) |
| | Default Gateway | 192 . 168 . 2 . 254 | |
| | Net Mask | 255 . 255 . 255 . 0 | |
| | Listen Port | 54321 (1 - 65535) | Save (*) |
| (*) Please reboot the receiver to reflect Network setting. | | | Reboot |

Device Name

Setting of name of the receiver.

The usable letter for the name of receiver that it is ASCII alpha-numerical within 32 characters and “+(Plus)”, “-(Minus)”, “_(Underscore)”.

Set it to unique name when use plural receivers in same network.

IP Address/Default Gateway/Net Mask

To set the network parameter of the receiver itself.

Listen Port

To set the port number which the receiver wait for connection.

Re-boot when change the network

(Press Reboot then start re-boot)

< Connections >

| | | | | | |
|-------------|---|-------------------|--|---|------|
| Connections | 0 | Connection Type | <input checked="" type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save | |
| | | Remote IP Address | 192 . 168 . 2 . 1 | | |
| | | Remote Port | 12345 (1 - 65535) | | |
| | | 1 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save |
| | | 2 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save |
| | | 3 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save |
| | | 4 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save |
| | | 5 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save |
| | | 6 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save |
| | 7 | Connection Type | <input type="checkbox"/> Use <input type="radio"/> TCP Server <input checked="" type="radio"/> TCP Client | Save | |

Select connection method to host. It can select “Server/Client” individually up to 8 places (max.)

Received Data List

Display the contents of file which stored of received tag information and data of start pistol.

The screenshot shows a web browser window titled "J Chip - Received Data List - Microsoft Internet Explorer". The address bar shows "http://192.168.2211". The main content area is titled "Received Data List" and contains three sections:

- PC-ID**: 00
- Starter**: 00:12:29.23
File : T00.009 Count : 1
- Received**:

| | | | | |
|---------|---------------|----|-------|----|
| A003D5A | 00:12:14.7800 | 11 | 10000 | BA |
| A007852 | 00:12:14.8300 | 11 | 10001 | A0 |
| A007833 | 00:12:14.8900 | 11 | 10002 | A6 |
| A00782F | 00:12:14.9000 | 11 | 10003 | B1 |
| A007834 | 00:12:14.9300 | 11 | 10004 | A4 |
| A007833 | 00:12:18.5100 | 11 | 20005 | A3 |
| A007852 | 00:12:18.5100 | 11 | 20006 | A5 |
| A007834 | 00:12:18.5300 | 11 | 20007 | A8 |
| A003D5A | 00:12:18.5700 | 11 | 20008 | C4 |
| A00782F | 00:12:18.5900 | 11 | 20009 | C1 |
| @SPTIME | 00:12:29.2300 | 11 | 1000A | 4B |

File : D00.009 Count : 11

At the bottom of the page, there is a red link: [<< Back](#)

- PC-ID Display PC-ID set by the receiver.
- Starter Display data of the start pistol.
- Received Display J-Chip tag information.

Log File(s) Maintenance(File)

Display the data saved to a receiver every file. It perform the download of the file and the delete by each unit of file. It is displayed over the plural pages when there are a lot of stored files.

This screen does not display during measurement.

J Chip - Log File(s) Maintenance - Microsoft Internet Explorer
ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)
アドレス http://192.168.1.35/cgi-bin/form003.cgi 移動

Log File(s) Maintenance

To Download Click the File Name

Delete Files

Filter By PCID : ALL Sort By : Filename Order : Ascending

| Delete | File Name | Size of D-file (Bytes) | Time stamp of D-file |
|--------------------------|---|------------------------|----------------------|
| <input type="checkbox"/> | D00.001 T00.001 | 0 | 2008/07/01 00:12:03 |
| <input type="checkbox"/> | D00.002 T00.002 | 0 | 2008/07/01 00:12:08 |
| <input type="checkbox"/> | D00.003 T00.003 | 0 | 2008/07/01 00:12:08 |
| <input type="checkbox"/> | D00.004 T00.004 | 0 | 2008/07/01 00:12:09 |
| <input type="checkbox"/> | D00.005 T00.005 | 4,141 | 2008/07/01 00:12:55 |
| <input type="checkbox"/> | D00.006 T00.006 | 656 | 2008/07/01 00:12:58 |
| <input type="checkbox"/> | D01.001 T01.001 | 4,428 | 2008/07/01 00:35:47 |
| <input type="checkbox"/> | D01.002 T01.002 | 1,025 | 2008/07/01 00:35:52 |
| <input type="checkbox"/> | D01.003 T01.003 | 2,050 | 2008/07/01 00:38:01 |
| <input type="checkbox"/> | D01.004 T01.004 | 3,895 | 2008/07/01 00:40:04 |
| <input type="checkbox"/> | D01.005 T01.005 | 1,681 | 2008/07/01 00:40:11 |
| <input type="checkbox"/> | D01.006 T01.006 | 0 | 2008/07/01 00:40:56 |
| <input type="checkbox"/> | D01.007 T01.007 | 1,927 | 2008/07/01 02:48:07 |
| <input type="checkbox"/> | D01.008 T01.008 | 1,066 | 2008/07/01 02:48:17 |
| <input type="checkbox"/> | D01.009 T01.009 | 3,116 | 2008/07/01 02:51:17 |
| <input type="checkbox"/> | D01.010 T01.010 | 697 | 2008/07/01 02:51:21 |
| <input type="checkbox"/> | D01.011 T01.011 | 123 | 2008/07/01 03:13:33 |
| <input type="checkbox"/> | D01.012 T01.012 | 41 | 2008/07/01 03:13:42 |
| <input type="checkbox"/> | D01.013 T01.013 | 1,599 | 2008/07/01 03:22:22 |
| <input type="checkbox"/> | D01.014 T01.014 | 1,804 | 2008/07/01 03:22:28 |

20 files on this page.

Delete Files

1

1 / 1

<< Back

インターネット

File download

Click the file name then display the menu of download on screen. Start the download by instruction in the menu of download.

“D”-file The data of received tag.

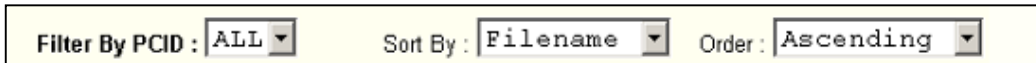
“T”-file The data of start pistol

File delete

Select the file which need delete. Press “Delete Files” then start the delete of file.

Press “Delete All” and “Delete Files” then all of the files delete

File List



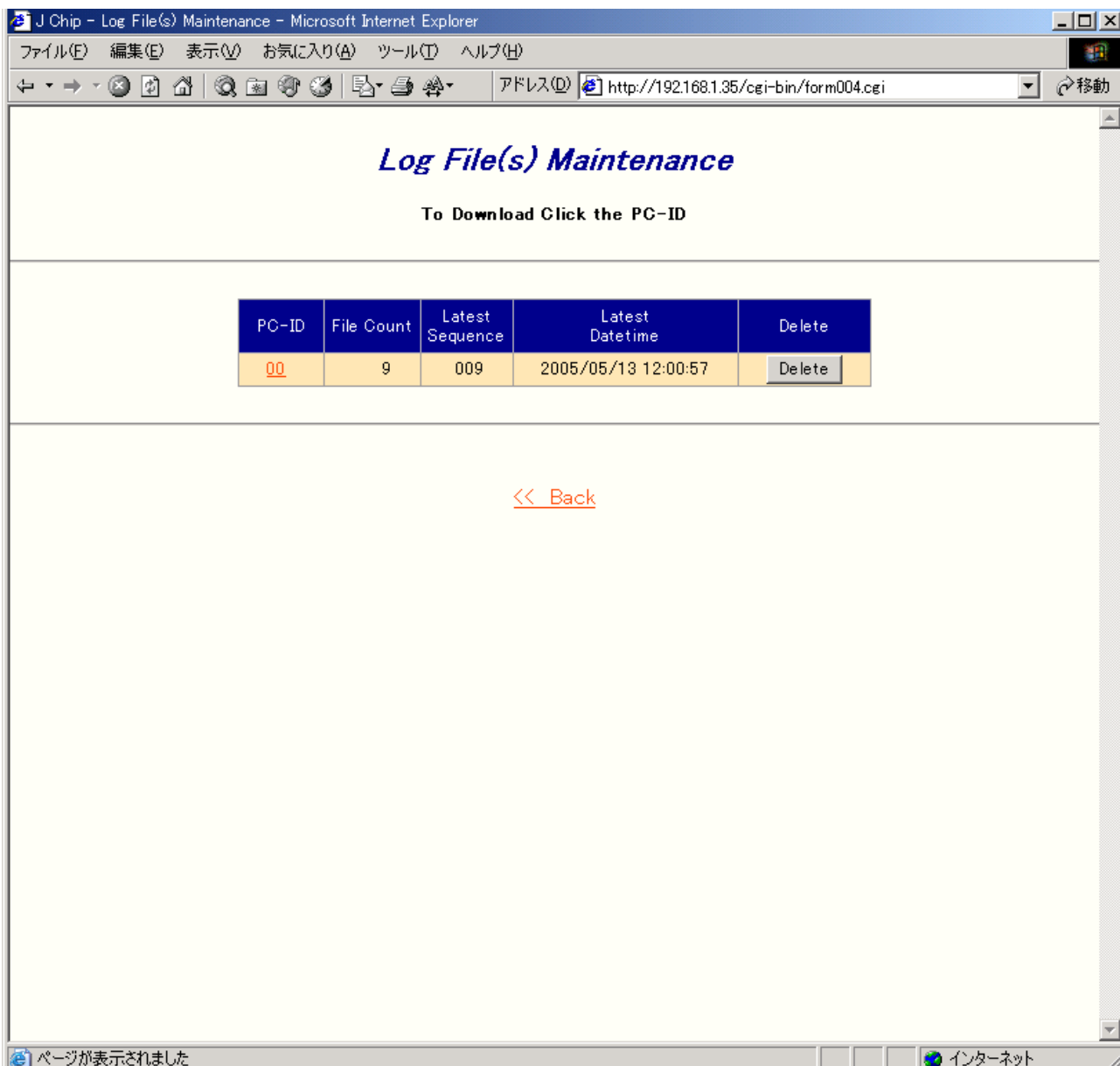
Filter By PCID : ALL Sort By : Filename Order : Ascending

Filter By PCID The specified file is displayed.
All of files are displayed when specify "ALL".

Sort By & Order The order of the display of the file is specified.(Ascending or Descending)

Log File(s) Maintenance(PC-ID)

Display each data which stored in the receiver. It perform the download of the file and the delete to every file. This menu is not display during measurement.



File download

Start the download by instruction as click the PC-ID then display menu of download.
The download file is compressed with ZIP format.

File delete

Press "Delete" of the PC-ID which need delete and start the delete.