IRC-1205
Operation Manual

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Cableware Electronics

Revision 2.11

CABLEWARE ELECTRONICS

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Introduction

Congratulations on purchasing the Cableware IRC-1205 Infrared receiver computer. The IRC-1205 is designed to give years of dependable service and grow with your system.

In the past status monitoring was an expensive add on and if it worked at all it still didn't help the person who needed it most, the cable technician. The IRC-1205 uses invisible light (Infrared) to receive the information to the service technician. Most of the time used to track down outages or intermittants is from the technician getting to the power supply and opening it up. If the problem is an intermittent one the technician may have to spend several hours waiting for the problem to occur.

With the IRC-1205 the service technician stops near the suspect power supply and points the receiver gun at it. Within a few seconds he knows exactly whats going on **AND** what the high and low limits have been!

Simple but Sophisticated was the design goal for the IRC-1205 Informer computer. You do not have to be a computer genius to operate this unit. The computer has only ten push buttons and with a menu just above the buttons the operator just pushes the button corresponding to the function he wants.

Readings from 1000 power supplies can be saved into memory and later can be downloaded to an IBM type computer for printing or logging.

Oh, one more thing before you start playing, the Infrared gun is a **VERY** sensitive device. **NEVER** point the gun directly at the sun. Permanent damage can occur. OK, here we GO!

Getting Started

The IRC-1205 comes sealed and wrapped in plastic. Inspect the unit for damage caused by the shipper. If damage is noticed, contact Cableware Electonics immediately.

When the batteries become low the IRC-1205 will inform the user by displaying a LOW BATTERY alarm. The unit should be recharged as soon as possible. If the batteries continue to discharge the unit will turn itself off. The IRC-1205 should be recharged using the supplied wall charger. When the charger is correctly plugged into the IRC-1205 the red charge indicator should light. The IRC-1205 will accept 18-25 VDC center pin positive or 18-25 VAC to charge.

Operation of the IRC-1205 is extremely easy. Open the case and remove the receiver gun. The lid can be removed for portable operation. To turn on the IRC-1205 push the red power switch. The computer will display the message:

> Waiting for new reading. Press any
> button 1-8 to bring up the
> last reading.

Point the receiver gun at the power supply in question and pull the trigger. When the gun is pointed at a power supply and is receiving data the computer will send a beep tone to help you aim the gun. When the computer has received a valid transmission it will emit a longer tone. At this point your all done! Easy, wasn't it?

Sunlight will affect your reception depending on the intensity and angle. If the sun is directly behind the power supply that you are trying to receive try moving to one side so that the sun will not be behind the power supply. **REMEMBER**, never point the gun directly at the sun. Sever damage can occur.

The Informer signal will transmit through normal glass but we have found that some of the newer vehicles have "Thermo guard" glass that is used to reduce heat in the vehicle. This type of glass will severely reduce the range of the Informer. If your vehicle indeed has this type of glass you might have to lower the window a few inches to take a reading. Sometimes you have to make sacrifices.

Menus

IRC-1205 Menus

If there is no data to display or if an empty record number is retrieved the following display will be shown:

```
EMPTY OR UNKNOWN TYPE CODE!!
      TYPE CODE=0
GET OR TAKE NEW READING
```

To clear this display either take a new reading or retrieve a non-blank record.

The following is an example of the **ALL** Menu.

```
Power Failure at 10:17  6/93 for 12
AC=121  DC=28.2  AMP=9.7  MODE=NORMAL
STBY TIME=362   EC=12   SELF TEST=GOOD
ALL   DC  AC  AMPS TEST TEMP  PF  MORE
```

More Menu

Before we get into what all this means, let's explore the **MORE** menu. This is used to set variables used by the IRC-1205 gun. Press button 8 to get to the MORE menu.

```
               SUB-MENU

TIME DATE  OFF  RAM  SAVE  GET IBM  DONE
```

Setting Time

The first button is used to set the time clock inside of the IRC-1205 unit. This should be correctly set since all the high and low limits along with the times of the last power failures are affected by this. If you press the TIME key you will see something like this:

```
        CURRENT TIME IS:
            14:52:25

HOUR  MIN  ZSEC             DONE
```

Pressing the HOUR key will advance the hours by one. Pressing the MIN key will advance the minutes by one and pressing the ZSEC key will zero the seconds. Press the DONE key when the time is set correctly.

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Setting Date

SETTING THE DATE

The next button will let you set the date in the IRC-1205 unit. Press this button and the display will look something like this:

```
        CURRENT DATE IS:
             07/28/93


MON  DAY  YEAR              DONE
```

Pressing the MON key will advance the month by one. Pressing the DAY key will advance the day by one and pressing the YEAR key will advance the year by one. Press the DONE key to return to the SUB-MENU.

Setting Auto Off Timer

SETTING THE AUTO OFF TIMER

Button 3 will let you set the auto-off timer. If no readings are taken and no keys are pressed, the IRC-1205 will turn itself off after so many minutes. The timer can be set from 1 to 8 minutes. The menu will look something like this:

```
This will set the Auto-Off timer.
Timer is currently set for 3 minutes.
Press 1-8 to set time or 9 to exit
1   2   3   4   5   6   7   8
```

Press the corresponding button to set the number of minutes before the unit will auto shutoff.

Clearing ALL Records

CLEARING ALL RECORDS (RAM)

This will let you reset **ALL** the records in the IRC-1205 unit. This menu looks like this:

```
This will clear ALL of the stored
records. Press YES to reset them or
No to exit this menu
YES                    NO
```

Pressing button one (YES) will clear**ALL** stored records in the IRC-1205.

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Saving Records

SAVING RECORDS

Once a reading has been taken it can be saved into memory in the IRC-1205. Press the SAVE button (5) and the menu will look like this:

```
        ENTER A THREE DIGIT RECORD NUMBER
FOR EXAMPLE, 005 OR 106
ADDRESS OF THIS UNIT IS 0
            RECORD NUMBER =
```

Addresses can be from 000 to 999 by pressing three keys. To get out of this menu **WITHOUT** saving a record, press and hold both the 1 and 8 keys **AT THE SAME TIME**. This will always reset the IRC-1205. The address of the power supply is displayed on the third line. You can use this address or enter any other you might want to use.

Getting Records

GETTING SAVED RECORDS

This will allow you to retrieve and view a stored record. It works much the same as the previous menu. Press the GET button (6) and the menu will look like this:

```
        ENTER A THREE DIGIT RECORD NUMBER
FOR EXAMPLE, 005 OR 106

            RECORD NUMBER =
```

Addresses can be from 000 to 999 by pressing three keys. To get out of this menu **WITHOUT** saving a record, press and hold both the 1 and 8 keys **AT THE SAME TIME**. This will always reset the IRC-1205.

IBM Downloading

TRANSFERRING DATA TO IBM COMPUTER

Pressing this button will allow you to transfer the entire data contents of the IRC-1205 to an IBM compatible computer. The IBM computer must be running the correct download software supplied by Alpha. Pressing this button will display the following menu:

```
DOWNLOADING DATA TO IBM COMPUTER
      SENDING BLOCK 0  OF 512

PRESS ANY KEY TO STOP
```

With the proper cable attached from the IRC-1205 unit to the serial port of an IBM type computer, the IRC-1205 will begin to transfer the data.

The last key is the DONE key. Pressing this key will return you to the ALL menu.

ALL Menu

ALL MENU

This menu let's you quickly see the current parameters of the power supply. A typical menu will look like this:

```
Power Failure at 10:17  6/93 for 12
AC=121  DC=28.2  AMP=9.7  MODE=NORMAL
STBY TIME=362   EC=12   SELF TEST=GOOD
ALL   DC  AC  AMPS TEST TEMP  PF  MORE
```

The first line is the time and date of the last power failure. The last number is how many minutes the power was off. The second line gives you the current AC input voltage, current DC battery voltage, current AC output current and the current MODE of the power supply. The MODE could be:

NORMAL= Power supply is in normal line power mode.
STANDBY= Power supply is in inverter mode.
TEST= Power supply is performing self test.
DELAY= Power supply is waiting to transfer back.
OFF!!= Power supply is NOT supplying output power!

The third line displays the total number of minutes in standby. The next item is the total number of standby events (EC) and the last item is the results of the last self test. If the test was bad, the word BAD will be displayed.

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DC Limits

DC LIMITS

This menu will display the high and low limits of the DC batteries over the last 36 hours. This menu will look like this:

```
         MINIMUM            MAXIMUM
DC VOLT: 26.2      28.4      28.6
   TIME: 14:42 07/28      11:22 07/28
ALL  DC  AC  AMPS TEST TEMP  PF  MORE
```

This displays the current battery voltage along with the high and low limit. Time and date of the limits are shown.

AC Limits

AC LIMITS

This menu will display the high and low limits of the AC line voltage over the last 36 hours. This menu will look like this:

```
         MINIMUM            MAXIMUM
AC VOLT: 114        122        128
   TIME: 14:42 07/28      11:22 07/28
ALL  DC  AC  AMPS TEST TEMP  PF  MORE
```

This displays the current AC line voltage along with the high and low limit. Time and date of the limits are shown.

Output Current

AC OUTPUT CURRENT LIMITS

This menu will display the high and low limits of the AC output current over the last 36 hours. This menu will look like this:

```
         MINIMUM            MAXIMUM
  AMPS: 9.2       9.8       10.6
  TIME: 14:42 07/28      11:22 07/28
ALL  DC  AC  AMPS TEST TEMP  PF  MORE
```

This displays the current AC output current along with the high and low limit. Time and date of the limits are shown.

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Self Test

SELF TEST INFO

Pressing this button will display more information on the last self test. The menu will look like:

```
Last test was at 06/22 13:11 for 10 mins
Results of the last test were GOOD
Bat volt under load 11.8 11.6 11.4  34.8
ALL   DC   AC   AMPS TEST TEMP  PF  MORE
```

The first line displays the exact time that the self test was run and for how long the test ran for. The next line displays the results of the self test. If the self test was bad it will display the word BAD followed by either AC or DC. DC means the battery voltage dropped below the low voltage cut-off. AC means the the power supply failed to output voltage. This could indicate a bad inverter. The last line displays the battery voltage of each battery at the end of the self test while still under load. The last value is the <u>total</u> battery voltage.

Temperature

TEMPERATURE LIMITS

This menu will display the high and low limits of the temperature over the last 36 hours. This menu will look like this:

```
         MINIMUM              MAXIMUM
   TEMP: 66       98       106
   TIME: 14:42 07/28      11:22 07/28
ALL   DC   AC   AMPS TEST TEMP  PF  MORE
```

This displays the current temperature along with the high and low limit. Time and date of the limits are shown. If the temperature values do not look correct it may be caused by an incompatibility between the IRXP board and the software inside the XP power supply.

Power Failures

LAST THREE POWER FAILURES

This menu will display the last three power failures. This menu will look like this:

```
Power Failure at 11:12 05/23  for 3
Power Failure at 08:34 05/21  for 10
Power Failure at >>90 DAYS  for 0
ALL   DC   AC   AMPS TEST TEMP  PF  MORE
```

This displays the time, date and length of the last three power failures. If the time was greater than 90 days, the display will show >>90 DAYS.

LOW Battery

LOW BATTERY WARNING

When the internal batteries become low a message will begin to show up on the display warning you that they are getting low. The unit should run for 15-30 minutes after this message begins. The IRC-1205 should be recharged as soon as possible to prevent damage to the batteries.

Charging

RECHARGING THE IRC-1205

To recharge the IRC-1205 Infrared receiver, plug the supplied wall charger into the jack marked "CHARGER". The red light just above the jack should light. The unit should be charged for 18 hours before use.

Back Lighting

BACK LIGHTING

The IRC-1205 is equipped with a back light for the display. When using the unit in darkness or low light, push the button 9 marked "BACKLIGHT". The display should now be lit from behind. If the batteries are low this function will be disabled.

Warranty and Service

Cableware Electronics will repair or replace, at our option, any parts found to be defective in either materials or workmanship for a period of one year from the date of purchase or if a defective part causes the unit to operate improperly during the one year warranty period, we will service it free if delivered and shipped freight prepaid to Cableware Electronics. No other warranty, expressed or implied is given. Cableware Electronics is not responsible for consequential damages, failure to read printed instructions, misuse or abuse, unauthorized modifications, use of our products in applications other than those intended by Cableware Electronics, fire, theft or accidents.

Service

Prior to shipment of any defective part, please contact Cableware Electronics Customer Service Department at (702) 641-4405 to obtain a Return Authorization Number. This RA# must be clearly identified on the outside of the cartons so it can be seen upon receiving. Send defective product with complete details of problems to:

CABLEWARE ELECTRONICS
4410 N. RANCHO #147
LAS VEGAS, NV 89130

RA # _____

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IRC-1205 PROCESSOR BOARD

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