Dynatek 6080RS multimeter

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WARNING:
NO RIGHTS ARE TO BE CLAIMED ON THE QUALITY OF THIS SOFTWARE.
YOU HAVE TO ACCEPT THIS SOFTWARE AS IT IS.
THIS SOFTWARE WILL RUN ON WINDOWS VERSION 3.1 AND HIGHER.

For software programmers there are programming instructions at the and
of this manual. Also technical information is given on how to communicate
with the RS-232 interface.

Connection

Connect the 9 pin RS232 communication cable to a free communication port from your
computer. The 3.5 mm connector should be connected to the connector on the Dynatek
6080RS multimeter.

Installing the software

- Put the 3.5 inch disk into your drive A: or B:
- Start from Windows with <File> <Start> A:SETUP (of B:SETUP).
- The installation program asks for the directory name (Default = C:\RS6080).
- You may change this for your own convenience. A program file and program with
  the name DYNATEK will be created.
- No restart from Windows is required after installing the software.
- Double-click on the DYNATEK-icon to start the program.

Starting the communication

1. Switch on the preferred communication-port into the left middle of the screen, with

the mouse pointer. If there is no communication-port available an error message will appear. Please check your connection or try another port.

2. Switch on the multimeter from the OFF position while pressing the REC and COMP button at the same time.
3. Switch on the software by clicking the START button from the communication field. (Left top-corner)

Below the time and date indication the digital-readings will start with the range indication (e.g. mV or Hz).

Other possibilities

S/Time
You can adjust sampling-time. If this indication is on 0 there are
4 readings/sec. You may change this setting to e.g. 1 or 3 sec.
In this case data will be refreshed every 1 or 3 seconds.

File Management

SAVE
It is possible to SAVE your measurement output. By clicking on the SAVE button you have to give in the filename (according to DOS a maximum of 8 characters is allowed). Furthermore there are two check-boxes to activate the recording of TIME and UNITS (=range). In this case also Time and Range (=mV or V) will be recorded. Click on OK. The Start button will change to red.

WARNING:
A maximum of 200 readings will be recorded. So switch on the right S/Time for maximum measuring time. You will be warned by a beep from your built in loudspeaker when this amount of readings has been reached. Push the SAVE button again to stop recording. If you have recorded e.g. 20 readings in the first period and later restart recording with the same filename, the new readings will be added at the and of the existing file. In this is way you can record a measurement with different intervals over a longer period of time. You are able to print out these readings afterwards. (See LOAD below)

LOAD
The files you saved can be recalled bij pressing the LOAD button. You are asked for the filename. Enter your filename and click the OK-button. All readings (with a maximum of 200) will appear on the screen. With the PRINT button you are able to make a hardcopy.

Printer

RdgData Off
All measured data can be printed immediately. The printed data is also directly related to the S/Time. Press RdgData Off and this button will change to red with the indication RdgData On. By pressing this button again the printing will stop. The value and time will always be printed. Indication of the range will not be added.

ATTENTION:
In a network situation, the printing will mostly start after finishing the total printing job.

Screen
With this button a hardcopy from the actual screen will be made. This also includes, graphical information.

REC
With this button you activate three extra windows with the values: MAX; MIN en AVG. You are able to measure over a total period of time the MAX (=Maximum) value; the MIN (=Minimum) and the AVG (=Average) values will be displayed.

CMP
With the edit button you can adjust the HI-limit and LO-limit. In the last window the Judgement in relation to the HI or LO value is displayed: HI when the upper limit is exceeded and LO when the lower-limit is exceeded.

REL
After clicking on the Edit button you are asked for a Reference value. The ERROR field now displays the difference in relation with this reference. The value can be positive or negative.

Graph screen

Setup
You can change the X- and Y-axes of the graphical screen. The Y-ax changes the range and the X-ax changes the readings. You can change to 280; 350; 700 and 1400 readings. The total result also depends on the S/Time as mentioned before. Switch on the graphical screen by pressing the ON button. The button will change to red. If the screen is completely filled it will switch off automatically and the OFF button changes to red. The screen will be cleared with the CLEAR button. Just start it from the beginning with ON.

Leave the program by clicking the left upper button from the screen. You are asked to save the Default values. Just click on Yes if you prefer this. The next time you start the program all previous settings will be regained.

Programmers information
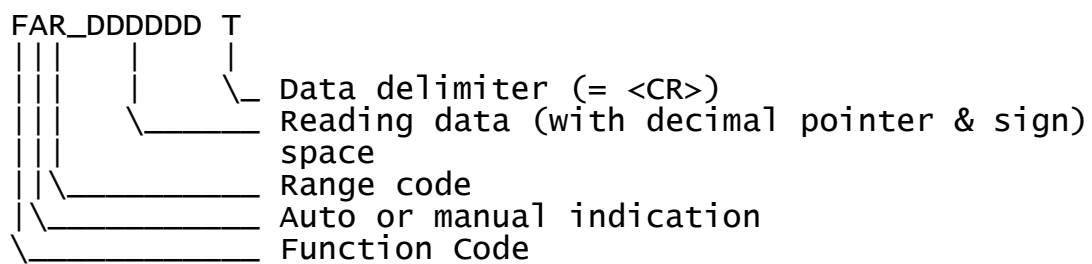
For your own application, please read following carefully:

Specification of RS-232

Baud rate   1200
Parity bit   none
Data bit   7
Stop bit   1

Data Format

```
FAR_DDDDDD T
||| | |
||| | \_ Data delimiter (= <CR>)
||| _____ Reading data (with decimal pointer & sign)
|||         space
||_____ Range code
|_____ Auto or manual indication
_____ Function Code
```

Function codes

Code	Function
0	AC V
1	resistance
2	DC V
3	DC mV
4	AC A
5	DC A

Code	Function
6	diode
7	DC mA
8	-
9	AC mA
A	capacitance
B	frequency

Range codes

Function code	Range code					
	0	1	2	3	4	5
2 / 4	4,000 V	40,000 V	400,0 V	1000 V		
7 / 9	40,00 mA	400,0 mA				
4 / 5	4,000 A	10,00 A				
1	400,0 Ω	4,000 KΩ	40,00 KΩ	400,0 KΩ	4,000 MΩ	40,00 MΩ
B	200,00 Hz	2,0000 KHz	20,000 KHz	200,00 KHz		
A	400,0 nF	4,000 µF	40,00 µF			
3	400 mV					
6	4,000 V					

Auto or manual codes

Code	Mode
0	Manual range
1	Auto range

Example program of application

```
      cls
      gosub ComOpen
      on com(2) gosub GetCom
      com(2) on

Waitloop:
      goto Waitloop

ComOpen:
      close #1
      open "com2:1200,n,7,1,rs,cs,ds,cd" as #1

GetCom:
      com(2) off
      input #1,rd$
          if len (rd$) > 9 then
              Rdgdata$=right$(rd$,7)
              FunCode$=left$(rd$,1)
              ModCode$=mid$(rd$,2,1)
              RgeCode$=mid$(rd$,3,1)
              print Funcode$;" ";ModCode$;" ";RgeCode$;"
";RdgData$
          end if
      com(2) on
      return
```