

METAL SHARK



TECTRONIX SYSTEMS INC.

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Remote AMD Operator Manual





SOFTWARE

Remote AMD[®] V1.0.3

User manual (English)

Project:

Project name:

Order / Project NO.:

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1 Introduction

Dear Customer,

Thank you for purchasing the Tectronix Remote AMD software.

This Program allows you to operate, control and exchange data with several Tectronix Mesu-02 Metal detectors through a Network from your PC.

Record keeping for MIS is greatly simplified, since reject events and faults including a time/date stamp are recorded in the PCs memory and may be printed out with the PC's printer. This software enables you to access and manipulate your metal detector remotely from anywhere with your PC.

Also all events will be permanently stored on your hard drive.

Please read this manual carefully

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2 General Information

Minimum hardware requirements:

Processor:	Intel Pentium und compatible> 166Mhz
Memory:	16Mb RAM
Free Disc space:	approx.. 10Mb
System compatible with:	Win 95B/C;98;NT SP 6; WIN2000; XP
RS485 cable	(Stock Lengths available : 100/200/300 foot lengths)

1X Stranded twisted Pair, 22AWG, overall shield, and an impedance of 50 to 55 ohms
(Custom Lengths Available up to 1500 ft.)

ATEN ,RS232/RS485 Converter

TECTRONIX part no. IC-485SI

Please de-activate your screensaver while operating the Remote AMD. Screensavers can take up enormous amounts of memory

During high data transmission rates the processor may be overloaded, which can lead to data transmission errors, since the information will only be partially, or not transmitted at all.

Please also note that the following base adjustments need to be made to establish communication between your PC and the AMD

In Operating level 3: The System Data for the controller has to be set as follows:

-Each controller needs a distinct address. No address may be duplicated.

-The processor uses # 63 as a default value, therefore no unit may be given the address # 63! Addresses higher than # 63 cannot be used.

-Please make a note of the address, since it needs to be entered into the system together with a name at a later time.

-We have found that it is better to use a location or a self-explanatory name instead of an abstract number, since it is easier to relate the detector to its location or use.

-In this level it is possible to check and change the time and date.

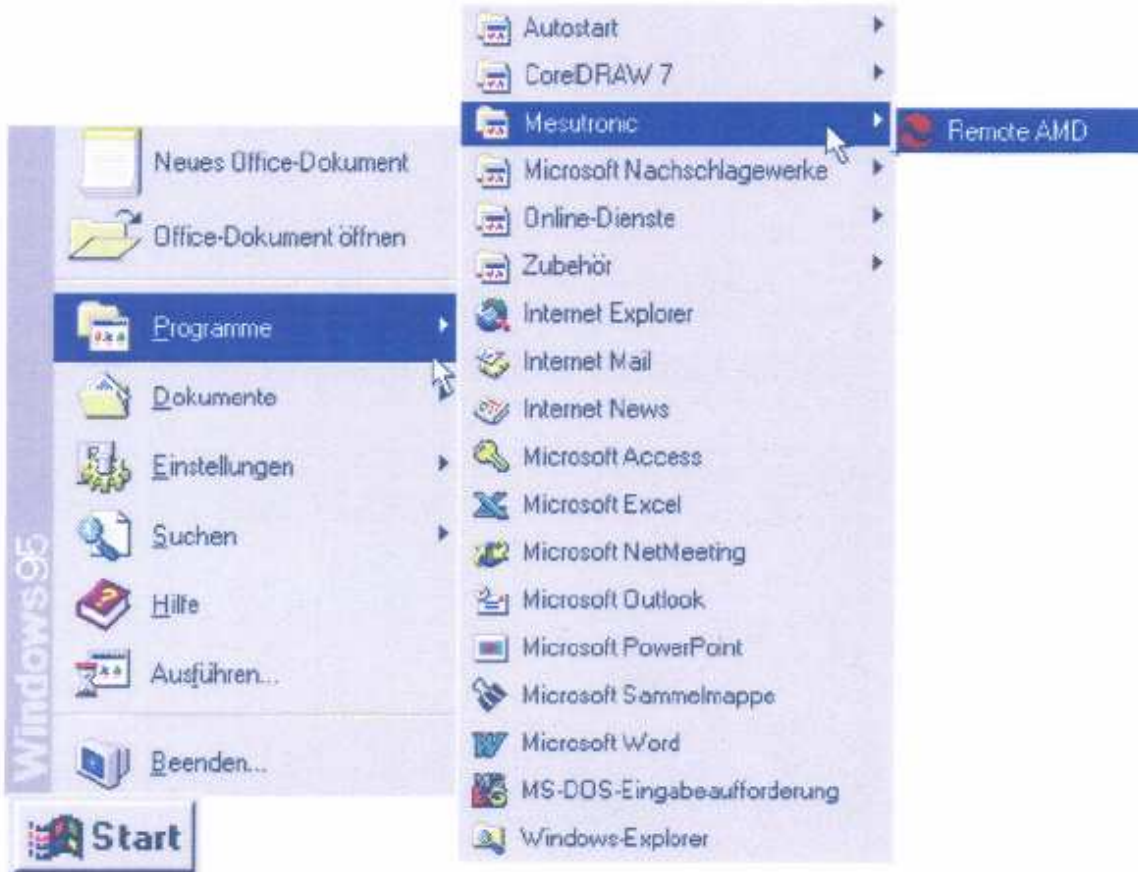
-This is not important for the communication, but if the wrong date is in the system, the wrong date will be transmitted

If you should require help, please note the version number before calling. This information is vital for our technicians.

You obtain the version number from the menu [Help-Info](#).

3 Operation

3.1 Starting the Remote AMD



To launch the remote AMD program in Windows 95/98/NT , click the Windows START-Button and follow the menu:

Start-Program – Mesutronic – Remote - AMD

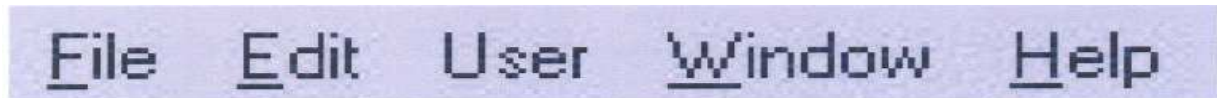
3.2 The user Display

The display contains the following components:



Menu bar

The Menu bar contains the following menu points:



File

The File menu contains the following submenus:

PRINT PROTOCOL

To sort and print detection events

Operation Protocol printing

Printer setup

You need to assign a printer to the program in order to print protocols. If your PC is connected to a printer you may use this printer. If you use a networked printer, please assign a path to the network printer. Please consult your network administrator.

Setup

To change base settings

Operation Base Settings for AMD Remote

Exit

To shut down the program.

Operation Shut down Remote AMD

Edit

- AMD 02 Display
 - AMD 02 setup
 - AMD02 Parameterausdruck
 - AMD02 Systemzeit setzen
 - AMD02 Setup save/restore
-
- Database ▶

:

AMD 02 Display

Displays the face panel of each detector

Operation The AMD Displays

AMD 02 Setup

To change the settings of each metal detector Levels 1-2-3

Operation The AMD Setup

AMD 02 Parameter printout

To print out the system parameters in Level 1-2-3

Operation AMD Parameter printout

AMD Systems clock adjustment

To set one or all systems to the PC's time

*Operation
AMD System time*

AMD 02 Setup save/restore

To save adjusted parameters or to load saved parameters

*Operation Save AMD Settings
Operation Load AMD Settings*

Datenbase

To edit the event database

*Operation
Editing protocols*

Users

To gain access to the systems by user code (if code option is activated)

Operation Logging in - Logging out

Window

To arrange the display windows.

Help

Icon bar

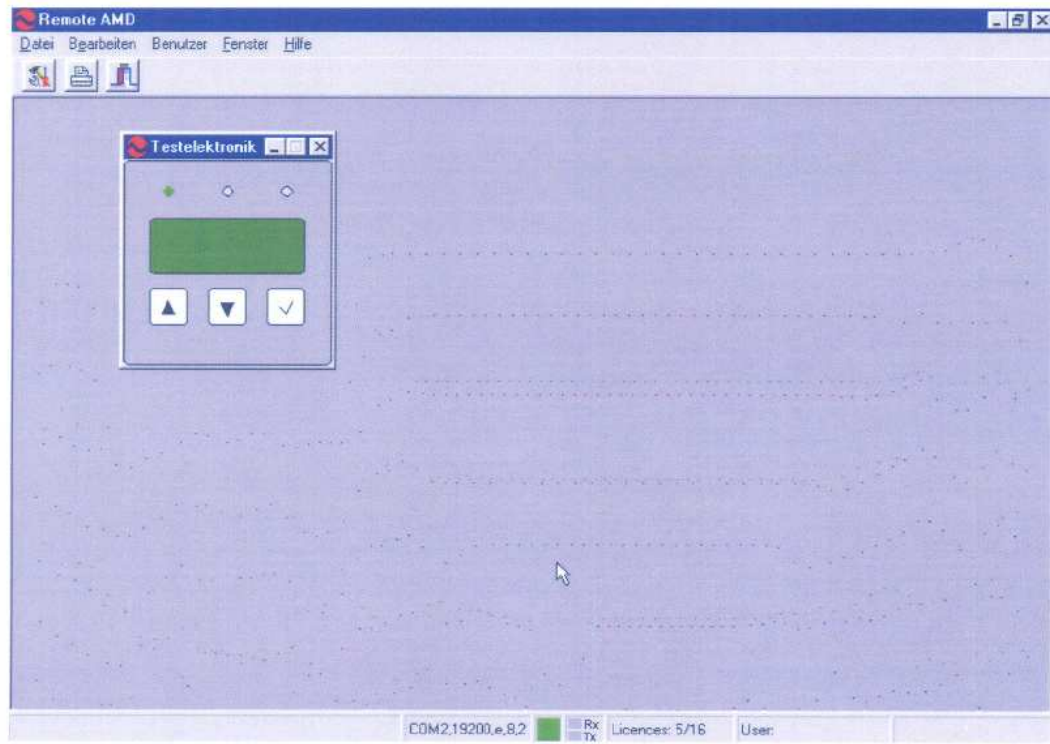
Displays the 3 most commonly used functions in graphic form.



- **Setup** (same as *File>Setup*)
- **Print Protocol** (same as *File> Print Protocol*)
- **Exit** (same as *File>Exit*)

Main window

The main window displays the graphics and text.



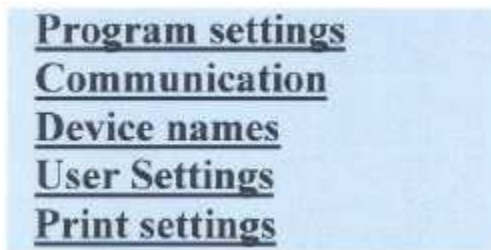
Note - From this window you may: - **Reset metal alarms**

- **Monitor Communications**

- The Green display remains blank and does not imitate the controller panel display. Only the round indicators are active indicating metal alarms or faults.

3.3 Base Settings for AMD Remote

The Menu "**File**" -> "**Setup**" or the **Setup Icon leads** you to a window with 5 register cards. Here you affect the most important settings to operate the remote AMD=PC. Each changed setting has to be confirmed by clicking the confirm field. This stores the new setting to memory and will be the default value when starting a new application.



Program settings



In the submenu **Program settings** you may adjust the **language** of the program and the Address of the unit you are working with. The **address** identifies the unit in the Systems bus. With the present software it is possible to digitally address up to 64 detectors (Addresses 0-63). The PC uses one of these addresses to be able to communicate with the detectors. This address is 63 as a default setting, but can be changed. Please note: Do not use the same address twice, to avoid communication conflicts.

The other devices can be addressed from 0 to 62 . The **access code** may also be activated in this menu. Check the *menubox* to activate the access code option.

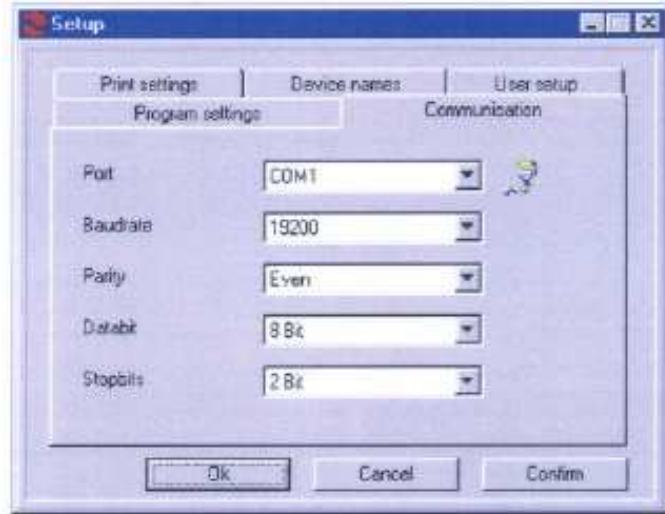
See "User setup" for details.

This assures that only authorized personnel has access and can change the data. **"Cleaning time"** is the time frame during which the detector ignores all metal signals. This setting is used to avoid rejects and erroneous data during cleanup. All metal detectors will be de-activated every day during this time, unless the setting is changed.

Communication

The Submenu **Communication** allows you to configure the port settings and the system bus. The communication menu selects the port where data transfer takes place (Normally COM 2) This is also the default setting

The **Baudrate** determines the data transfer rate to the bus. It has to be the same for all units operated under this system. Do not change the settings for **Parity**, **Databits** and **Stopbits**.



Changing these settings will terminate communication between the devices

Device names



The submenu **"Device Names"** allows the user to name the detectors.

The **ID** has to be the same as the detector number. Each device can have a **Name** assigned to it. We recommend using self-explanatory names

The units and their respective numbers can be listed at random on the display.

User Settings

The submenu “User Settings” may be Used when the access code is activated Different users can be given full or restricted access to the detector settings. User names and access codes can be changed, new users be added.

5 access levels are available to the user:

Display:

The user may only access the display panel setting. New displays may be added.

OP Level 1:

The user has access to level I and can perform adjustment to level 1

OP Level 2:

The user has access to level 1+2 and can perform adjustments to level 1+2

OP Level 3:

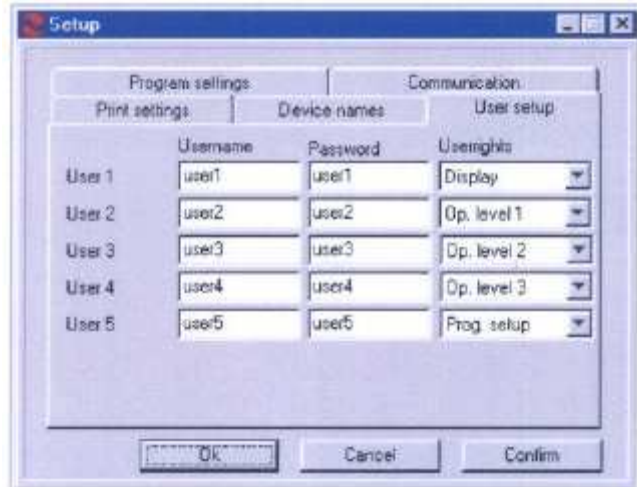
The user has access to level 1-2-3 and can perform adjustments to level 1-2-3

Program setup:

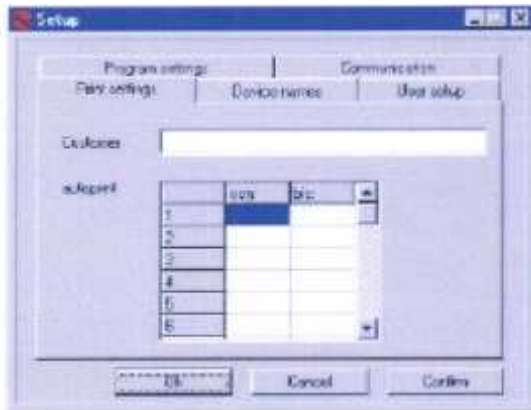
The user has access to all OP levels. Access codes can be changed, access to other users can be granted, denied or modified.

Please note:

If the access code box is not activated, anybody using the PC can change settings. This may lead to an inoperative system if the user is not familiar with the system.



Print settings



The submenu **Print settings**

This is to set the time intervals for the printouts. If no time frame is set the printout has to be activated manually.

Operation Protocol printing

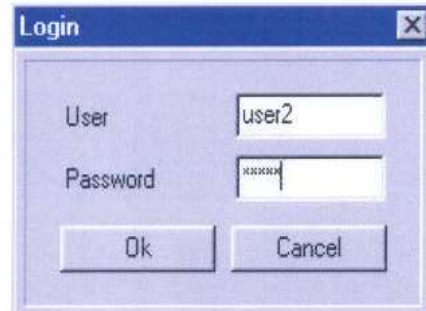
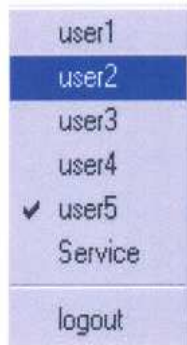
The contents of the box marked "Customer" will be printed as a footnote

3.4 Logging in – Logging Out

(Only if access code is active)

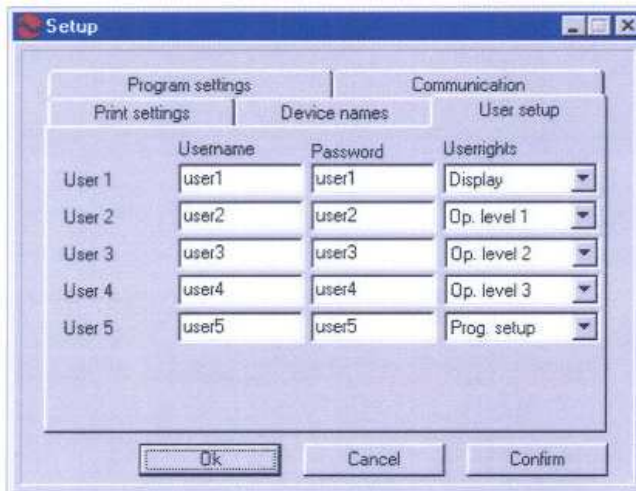
Login as a user

To gain access to the system as a user, click on your name This activates the text box. Enter your password into the text box. If the user name and the access code match, the user will be granted user1 access to the corresponding part the system. If the user attempts to access an unauthorized part of the system, the text box for the access code will open again. The user will be able to access only if the correct code is entered.



Logout

If you wish to log out click on user logout.



Note: Only one user at a time can access the system. If a new user logs in, the old user will be logged out automatically

Note: To verify if you are logged in, check the user box. The check mark beside the name indicates who is logged in.

Note: Default settings on left.

3.5 The AMD Displays

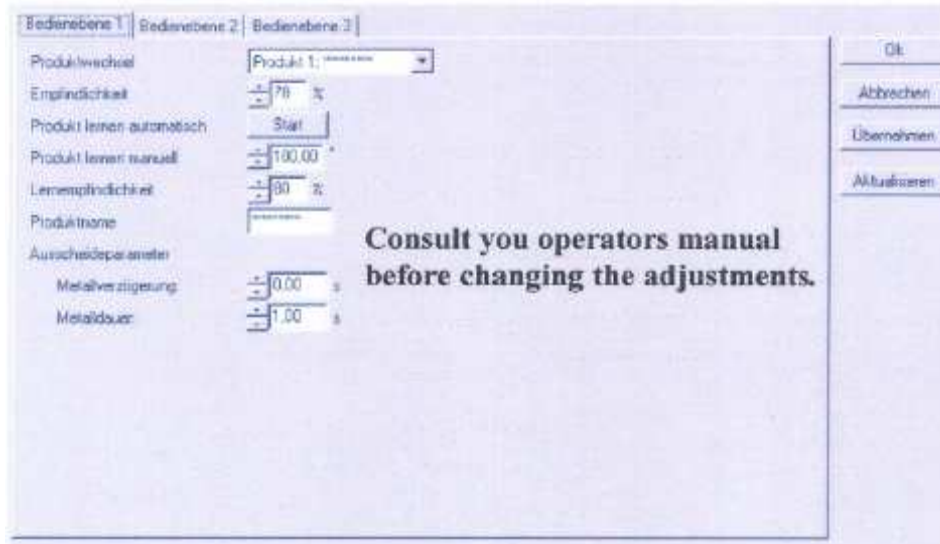
To show a display on your PC screen: Click **Edit** on the submenu **AMD 02 Display**. Now all registered units appear. Select the desired unit or select all.



3.6 The AMD Setup

Adjust the detectors from your pc:
AMD02 Display

Click **Edit> AMD 02 Setup**. Select the unit you wish to modify. You will need the access code **if the access code option is activated** This opens the submenus **Level 1-3**



3.7 AMD Parameter Printout

You may print out the parameters of level 1-3 for each AMD.

Click on Edit > AMD 02 Parameter Printout

Select the unit



This opens a window that displays the printout. [Click on print](#) for a printout



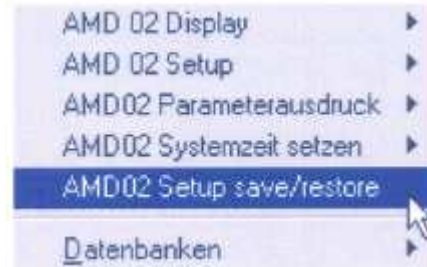
3.8 AMD System Time

To synchronize the Time of the individual AMD's with the PC, open Edit> AMD 02 System time setzen.

Select the appropriate AMD. You may also synchronize all AMD's. You should use this option to assure that all documentation carries the same date - time stamp



3.9 Save AMD Settings



If you have changed the settings on a unit, you can store these new settings. This gives you the option to revert to your saved settings after a reset or a setting change made in error. To save a setting, open [Edit->AMD 02 Setup save/restore](#), which opens this dialogue box:

Please select the desired unit

Click [save](#)

Select the appropriate path and file, then [Save](#). The factory uses the same file for the program data.



3.10 Load AMD Settings



Saved setups can be uploaded with the PC to avoid manual setting of the unit.

Go to **Edit>AMD Setup save/restore**
 Select the appropriate AMD from the dialogue box, click **load**



This opens the default installation file.

Select the correct setting (saved settings have the ending **.sav**) and confirm with **open** .

The saved settings will now be uploaded to the AMD. This option is useful when the same settings apply to several units.

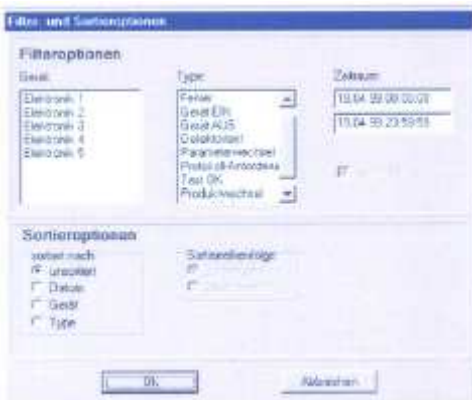


3.11 Protocol Printing



For a manual protocol printout
Click the **Protocol printout icon or File->Print Protocol**, which opens a dialogue box with filter and sort options. The default settings are ,**no Filter**" and ,**unsorted**"

Meaning all events will be printed, but you may select to have only certain events or certain units printed out. You may select the following filter options:



- Metal
- Fault
- Power On
- Power Off
- Detector Test
- Parameter Change
- Protocol request
- Test OK
- Product change
- Learning Angle

You may select these sorting options:

- Unsorted
- by date ascending/descending
- by device ascending/descending
- by type ascending/descending

You may also select a time name for which you desire a report

After affirming with **OK** the dialogue box asks if a detailed report is desired or not.

A detailed report is preferable, since it contains all required information and is easier to understand, as long as the amount of data required is not excessive.



3.12 Editing protocols

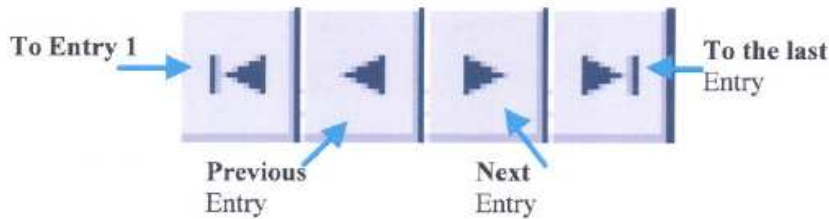
Data is stored in the Database. We recommend to the data base frequently to avoid over flow of data

Go to **Edit** and select **Database->Messages**.

(**Database-> Texts** cannot be accessed. It is only accessible to the technician. If the access code is activated, the user has to have access privileges to "adjustments ".



The window protocol data shows all data on the left. If you select a data point, more information such as date, time quality and quantity of the event is displayed on the right. The long dialogue box below the 2 windows displays the transmission code in hexadecimal writing, and is only of importance for the technician. Below is a navigation bar with the following options:



In addition you may select from the following options:

1. Update:

The contents of this window will be updated, meaning existing and newly received data.

2. Reset

All data is erased.
The event counter begins at zero.

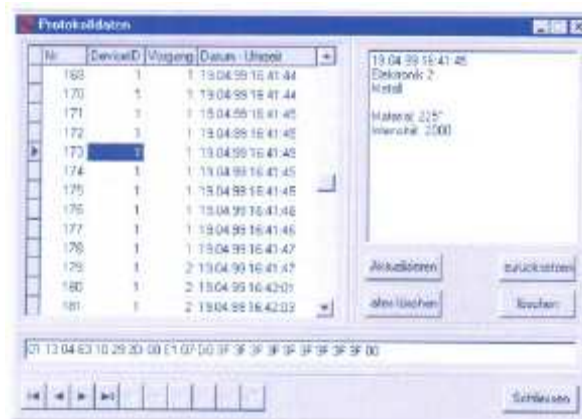
3. Delete all

Erases all entries, the event counter is not affected.

4. Delete

The selected entry will be erased

Note: We recommend clearing the database from time to time. This aids the user in finding a certain event among the rest. Adjustment data and settings are **not** affected.



3.13 Shut down Remote AMD



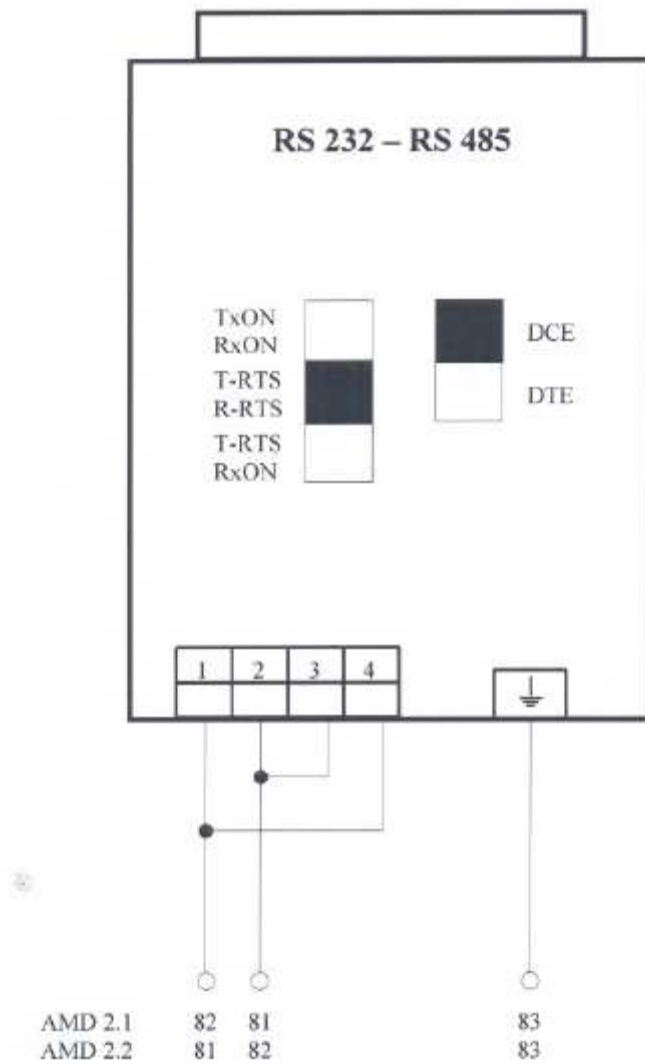
To close the program, click the "*close*" icon on the taskbar.

4 Wiring

Wiring *Interface converter RS 485 – RS 232*
 Wiring *Metal detectors - PC*

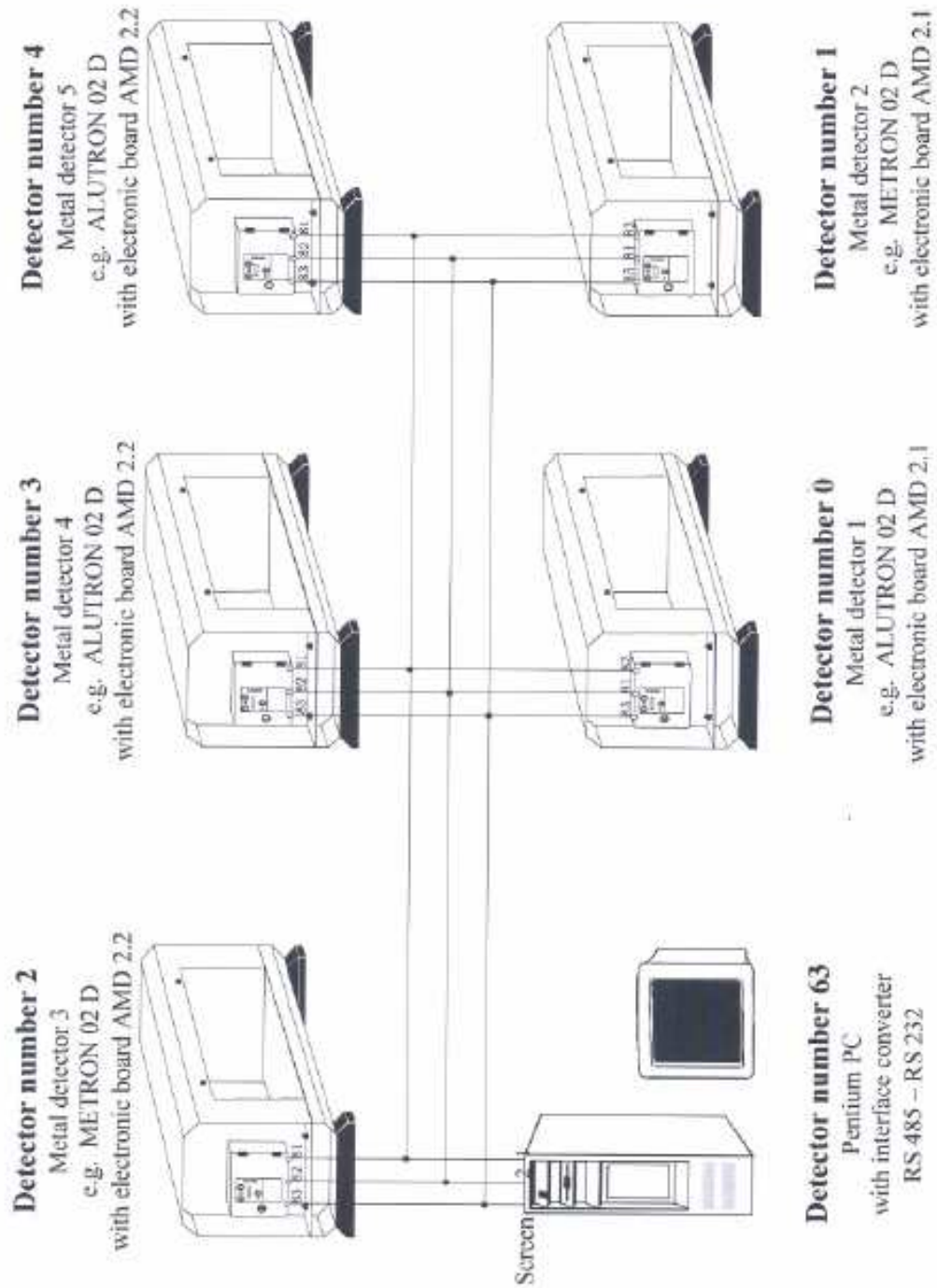
4.1 Interface converter RS485 – RS 232

25 channel socket to be connected to serial interface on PC



Connection to metal detector

4.2 Metal Detectors - PC



5 Troubleshooting

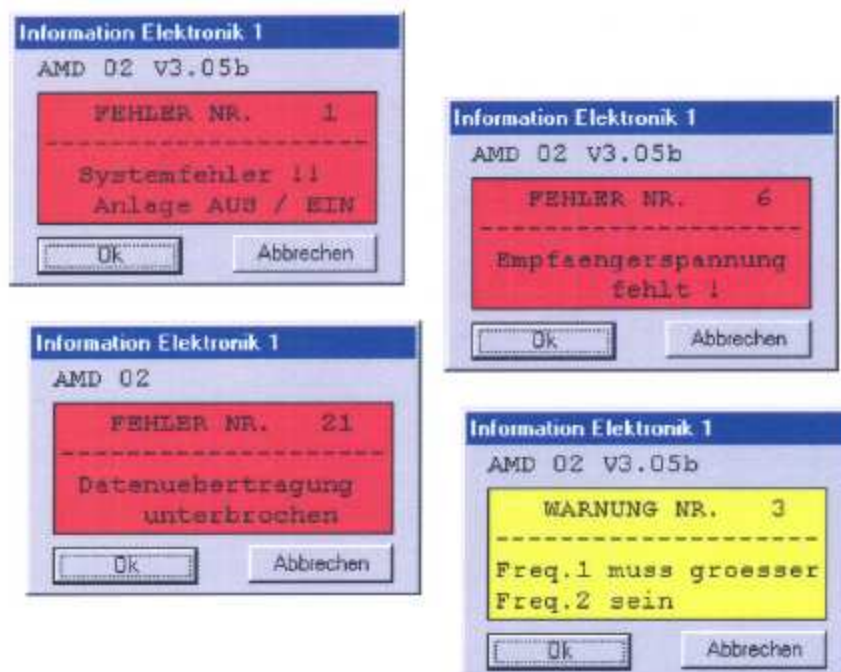
Troubleshooting *Error Messages from the Controller*
Troubleshooting *Error messages Software*
Troubleshooting *Whom to contact ?*

5.1 Error Messages from the controller

The following Screens show some **Error messages** and **Warnings** of the controller. This data is not processed or evaluated. It is only displayed.

The software does not affect or process the error messages.

Please contact Tectronix Systems' Technical support for the meaning of the messages.



5.2 Error messages Software

This chapter deals with error messages from the software. After the error message we show the reason for the error and how to eliminate it

These messages originate from the program. Meaning the software recognizes the error and displays it.

Only a certain error message appears, which has the same root:

The error message:



is followed by:



or



and means that the communication between the processors and the device is interrupted.

Please check all cables and connections

- ***Check all connections for good contact.***
- ***If some devices are recognized, others not, follow the path to the source of the error and check the connections at this part.***
- ***Confirm that the addresses between software and unit match. Correct if necessary.***
- ***Check that each unit has its individual address. Check that there is no multiplication of addresses in the controller and in the program***
- ***Another source of error can be the configuration on the port. Check both port settings (Com x) Check that both devices have the same baudrate (preferable 19200).***
- ***Check the address of the Pc.***
- ***Check that the addresses are between 0 and 63.***

If you have eliminated these sources of errors, the hardware may be faulty.

5.3 Whom to Contact

If you still experience difficulties or require additional information, please contact us during normal office hours. (8:00am to 4:30pm Pacific Standard Time, *except weekends and holydays*)

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User manual Remote AMD

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