



YELLOW ACTIVITY MONITORING SYSTEM

Kinetic Electronic Designs CC

Frequently Asked Questions

Revision GH20

This FAQ is applicable to V2.06 of the system software. If necessary, please upgrade to this version by downloading the latest software from <http://www.ked.co.za/downloads/dllatest.htm>

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1. INSTALLATION

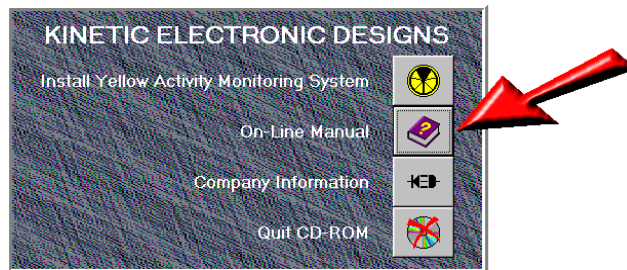
1.1. What do I do first?

Unpack and install the software onto a PC.

1. Insert the disc in the CD-ROM drive
2. The Setup program should start automatically within a few seconds. If it does, skip to step 5.
3. If the setup program does not start, use Windows Explorer to browse the CD-ROM.
4. Double-click on the **cdinst** application.
5. Click on the **Install Yellow Activity Monitoring System** button to install the software.

1.2. What do I do next?

Full instructions for the installation of the System Software, Activity Recorders, Desk Readers and Data Gatherers are given in the On-Line Manual. Click on the On-Line Manual button in the CD-ROM installation screen, shown below. Follow the instructions under the Installation section.



The On-Line Manual may also be opened from the System Software, when installed, by clicking on the Help | Contents menu item, or pressing F1.

2. CONFIGURATION AND SETUP

2.1. I've installed the software. What next?

Run the software, and make use of the built-in Help facilities. Often, Pressing the F1 key from anywhere in the software will present detailed assistance related to the screen or operation that is being displayed.

2.2. I've run the software and it's asking me to license it. What now?

The software must be licensed i.e. registered with KED before full functionality is permitted.

Another benefit of licensing the software is that it ensures that KED has had contact with system users. KED can then provide better support and service to users.

Licensing is a three step process:

1. Type in the company name and the software will create a code number
2. E-mail, phone or fax the code to KED.

3. KED will return a licence number.
4. Enter the licence number into the software.

2.3. Most of the buttons and menus are “greyed” out, and do not work

The first thing that needs to be done after running the software is to set a database location. This is the folder on the hard drive where all vehicle and activity data will be stored. This is done via the File | New Database menu. It is advisable to specify a folder that will contain only the Yellow activity data. Do not specify a folder that already contains files from some other source.

Once a database location has been specified, appropriate button and menus will become available.

2.4. Now what?

Next it is necessary to configure the software so that it can communicate with the Data Gatherer (via the Desk Reader). Under File | Setup | Local, select the Desk Reader tab, and specify the COM port number to which the Desk Reader is connected.

Test that the correct selection has been made via the Data Gatherer | Initialise menu item. Read the presented instructions and follow through with the steps, until the software indicates that the Data Gatherer has been initialised.

Should the software appear unsuccessful in attempting to communicate with the Data Gatherer, it is likely that the COM port has been incorrectly selected. Confirm connections and the COM port selection.

2.5. The last setup step

The last compulsory setup operation is to add vehicles to the list that is to be monitored. This is done by clicking on the “New” speed-button in the top button bar, or via the File | Vehicle | New menu item.

The minimum amount of information that should be filled in is a unique Registration Number. After adding a new vehicle, the opportunity is given to program the registration number into the Activity Recorder that will be mounted in the vehicle. (This operation may also be carried out later using the Data Gatherer | Set Registration menu item.)

3. OPERATION

3.1. How do I know that the Activity Recorder is working correctly?

The Activity Recorder flashes only ONE of its two indicator lights every 6 seconds (approximately) when it is working correctly. This indicates that it is either “busy” (having experienced vibrations in the past minute), or that it is in “standby” state (waiting for vibrations).

If the vibrations recorded by the Activity Recorder are low, consider mounting the unit in another location or orientation. See the mounting advice in Section 5 below.

3.2. The Activity Recorder does not appear to be working correctly. What do I do?

Examine the indicators, and note how they are flashing.

3.2.1. They both flash every 6 or so seconds

Both indicators flashing together shows that the Activity Recorder does not know the time and date. These are set automatically each time that the Data Gatherer, which carries the current time and date from the PC, does a download from the Activity Recorder.

To get the Activity Recorder working, do a download into the Data Gatherer.

If this does not solve the problem, refer to question 4.2

3.2.2. The red “busy“ indicator flashes, but the green “standby“ indicator will not flash, even when the unit experiences vibrations.

The Activity Recorder will not recognise or record vibrations immediately following a download to the Data Gatherer. It watches its internal clock until the start of a new minute, and will only then begin recording vibrations (and showing this by flashing the green “busy” indicator).

The vibrations may be too weak in intensity or too high in frequency. The recorder has a threshold level of intensity (moderately high, as would be experienced when the vehicle is working) and frequency (low, as would be experienced by stop-start bumping and knocking. The recorder will not, in general, detect an idling engine.

3.3. How do I know that the Data Gatherer is working correctly?

The green “busy” indicator turns on for the entire time that the Data Gatherer is operating. The Data Gatherer buzzes when it is receiving data (from the Activity Recorder) or when it is sending data (to the PC, via the Desk Reader). At the end of an operation, the Data Gatherer beeps briefly and then turns off its green “busy” indicator.

3.4. How do I know that the Desk Reader is working correctly?

The Desk Reader is a channel between the Data Gatherer and the PC software. The Desk Reader is working correctly if a download operation, as described in Section 4.3 below, completes correctly.

4. DOWNLOADS

4.1. How do I know that I have downloaded data from the Activity Recorder into the Data Gatherer correctly?

Inserting the Data Gatherer into the socket on the Activity Recorder starts the download operation. The green “busy” indicator on the Data Gatherer will turn on, and stay on for the duration of the download. During the download the Data Gatherer will emit a continuous buzzing sound. The indicators on the Activity Recorder do not flash while the Data Gatherer is doing a download, or while it is held in the socket. The download operation normally takes about 10 seconds to complete. The Data Gatherer stops buzzing, it beeps briefly and its green “busy” indicator turns off at the end of the download.

4.2. The download from Activity Recorder to Data Gatherer does not appear to be working correctly. What do I do?

4.2.1. The Data Gatherer's green "busy" light does not turn on when it is pushed into the Activity Recorder socket.

The contacts on the Activity Recorder or Data Gatherer may be dirty or damaged. Cleaning the contacts can be done by

- Simply wiping the faces of the Activity Recorder contacts with dry fingers
- Wiping the contacts with a cloth and mild detergent. (Dry the contact area immediately afterwards.)
- Wiping the contacts with a non-abrasive pencil eraser

NEVER use abrasive cleaners or solvents to clean the contacts.

The Data Gatherer spring-loaded contacts should clean and undamaged.

The Data Gatherer's battery may be too low (flat) to operate it. Change the battery.

4.2.2. The Data Gatherer's green "busy" light is on, but there is no buzzing

Withdraw the Data Gatherer, wait for green light to go off, wait a further 5 to 10 seconds and try again. All indicators on the Data Gatherer should be off for at least 5 to 10 seconds between download attempts.

4.2.3. The buzzing sound is intermittent

The Data Gatherer is not being held firmly in place. The Data Gatherer should be inserted into the Activity Recorder socket and held firmly in place for the entire duration of the download.

The contacts on the Activity Recorder or Data Gatherer may be dirty or damaged. See 4.2.1 above.

4.2.4. The red "fault" indicator comes on, and the Data Gatherer emits a set of 4 descending tones

The Data Gatherer is not being held firmly in place. See 4.2.3 above.

The contacts on the Activity Recorder or Data Gatherer may be dirty or damaged. See 4.2.1 above.

4.2.5. The red "fault" indicator comes on, and the Data Gatherer emits a set of 2 descending tones

The Data Gatherer's memory is full. Take it to the PC and download the data.

4.2.6. The yellow "battery low" indicator comes on

This shows that the battery in the Data Gatherer is getting too low for continued operation. Download data to the PC, and then change the Data Gatherer battery as soon as possible.

4.3. How do I know that I have downloaded data from the Data Gatherer, via the Desk Reader, into the PC correctly?

The software will display a window that shows the progress of the download. The window contains an "instructions" section (which explains what the user must do) and a

“current operations” section (which explains what the software is doing). These messages will change during the progress of the download.

A download starts when the software is waiting for the Data Gatherer to be inserted into the connected Desk Reader. The Data Gatherer, when inserted, will turn on its green “busy” indicator. The first operation of the PC is to query the Data Gatherer for its version number. Once it has that information, the title of the window will be changed to include the version number. The download then continues with extraction of the data from the Data Gatherer. This is shown on the progress bar. The Data Gatherer buzzes during the download. The PC then instructs the Data Gatherer to clear its memory. The PC then sends its date and time to the Data Gatherer. Finally, the PC turns the Data Gatherer off – it beeps and the green “busy” indicator will go out. On the screen, the download window will either disappear, or a message will appear showing any errors or warnings that result from the download.

4.4. The download from Data Gatherer, via the Desk Reader, to the PC does not appear to be working correctly. What do I do?

4.4.1. The Data Gatherer’s green ‘busy’ indicator will not turn on.

The Desk Reader is not plugged into the PC correctly. Examine the cable and connection. Ensure that the plug is correctly inserted into a serial COM port or a USB/Serial adapter.

The Data Gatherer is not being held firmly in place. The Data Gatherer should be inserted into the Desk Reader socket and held down with slight pressure during the entire duration of the download.

The COM port has not been selected for the Desk Reader. See 4.4.2

4.4.2. The Data Gatherer’s green “busy” indicator turns on, but after a few seconds it beeps and turns off. The software window does not change.

The correct COM port has not been selected for the Desk Reader. Go to the menu item File | Setup | Local. Select the Desk Reader tab, and ensure that the selected COM port matches the COM port to which the Desk Reader is connected.

Older versions of the system software only supported COM ports in the range of 1 to 4. If a USB/RS232 converter is used, it installs as a COM port number outside of this range. If this is the case, it is strongly advised that the latest YAMS software be installed. Alternatively, the USB/RS232 COM port number may be changed into the range of 1 to 4 via the Windows control Panel.

4.4.3. The Data Gatherer’s green “busy” indicator turns on, but after a few seconds it turns on the red “fault” indicator, gives 4 descending tones and turns off. The software window does not change.

This may sometimes happen at the start of a download. Keep holding the Data Gatherer in place in the Desk Reader. A download should commence within the next few seconds.

4.4.4. The Data Gatherer’s green “busy” indicator turns off part way through the download, and the software displays an error message

The Data Gatherer is not being held firmly in place. See 4.4.1 above

4.4.5. There does not appear to be any new data recorded for the vehicles

The software will display a window showing error messages or warnings, if there are any, following a download. Take note of these messages.

Data will only be assigned to vehicles that are listed on the PC, up to the date and time that the last download was made from that vehicle's Activity Recorder to the Data Gatherer. Check that the correct date is being requested. Use the "Last Day" buttons that are on the graphical and numerical reports to find this.

5. ACTIVITY RECORDER MOUNTING

5.1. What is the best way to mount an Activity Monitor in a vehicle?

A mounting template is provided with each Activity Recorder as a guide for drilling holes in the vehicle body for the permanent mounting of a recorder. Alternatively the recorder may be mounted using three 140mm lengths of 12mm wide double-sided foam adhesive tape. (3M manufactures such a product for attaching mirrors to walls.) The mounting surface should be clean and smooth if this method of mounting is to be used.

Please note: The recorder should be firmly mounted to a vibrating surface. Loose mountings, or simply placing a recorder on a vibrating surface, does not always result in good recording of the vibrations that the surface is experiencing.

5.2. Where, on a vehicle, is the best position to mount the Activity Recorder?

The choice of mounting position is most important for satisfactory operation of the recorder. Various surfaces of a vehicle may experience different vibration intensities and frequencies during work. The intensity of recorded vibrations will thus vary depending on where in the vehicle the recorder is mounted.

A mounting location may be tested for suitability by temporarily mounting a recorder in place using some short strips of double-sided tape (described in 5.1 above). Once the position has been ascertained as being suitable, the recorder may be more firmly attached using drilled holes and the provided self-tapping screws or double-sided tape.



5.3. Which way should the Activity Recorder face when it is mounted?

The Activity Recorder's vibration sensor is configured to detect vibrations that occur in the width-axis of the recorder i.e. from left to right across the face of the recorder. The intensity of recorded vibrations will thus vary depending on the orientation of the recorder when mounted in the vehicle. It is best to mount the recorder so that it's indicators are facing to the left- or right-side of the vehicle as most work-related vibrations occur down the length of a vehicle's axis, and not from side to side.

The recorder should also be mounted as nearly vertically as possible for best performance. A recorder that is not vertical, or is placed horizontally, will have increased sensitivity to

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vibrations. A recorder that is mounted upside down will be even more sensitive. Mounting upside down may, however, result in dust and dirt collecting in the Data Gatherer connection socket, which will affect download operations.

Non-vertical mountings may, however, be too sensitive and may report non-work related vibrations, such as an idling engine, as being “work”.
