Powerful Web Based
Data Logging Solutions

INSTALLATION INSTRUCTIONS

DAN MONITORING SYSTEM MODEL DM01-201

INTRODUCTION

The DAN Monitoring and alarm system consists of two elements:

1. A field mounted hardware unit THE DATA CONTROL CENTRE (DCC) used to gather data and undertake local actions in accordance with instructions.
2. A web based facility DAN SENTRY allowing communication with the field unit, and providing a secure repository for data both sent by the field unit and generated by the system.

Before logging onto the web site it is necessary that the DCC be installed and connected to probes in accordance with the wiring diagrams supplied on the DAN website. Log onto to http://www.danmonitoring.com/library/installation and view "**Installation Instructions DAN Monitoring System Model DM01 – 201.** Dip switches must be set dependant on the type of probes connected. The DCC contains a modem for communications and a rechargeable battery pack. The battery pack must be continuously charged utilising the power pack supplied or by connection to solar panels (refer wiring diagram). Solar panels should be sized to accommodate the power requirements of the system including probes. Contact DAN for assistance with solar panel sizing.

INSTALLATION – Field Mounted Hardware

(NOTE: Unless you are familiar with the installation of electronic equipment, the job should be completed by a person with that experience.)

1. Before mounting the DCC, the batteries which are shipped separately must be inserted and connected. Refer to the installation instructions enclosed.

2. The DCC must be located giving consideration to the following:

   - Mounting should be via screws through the four existing mounting holes located in each corner of the case.
     DO NOT DRILL HOLES IN THE CASE FOR MOUNTING AS THIS MAY PERMIT MOISTURE OF DUST INGRESS AND VOID THE WARRANTY.
   - The distance from the probes to be connected does not exceed the requirements of the probes. If probe connection distances exceed that recommended, separate transmitters may be required. (Refer individual probe instructions).
   - Availability of mains power if charging is to be provided via a power pack. Best to ensure that a power outlet is conveniently available.
   - If communication is to be via the mobile telephone network, ensure that the DCC is mounted within a good reception area. An external aerial is available from DAN and will improve reception.

3. Mount the DCC onto a solid medium such as a wall using the mounting points provided in the corner of the box. Mounting holes are located under the corner hold down screws.

4. Once mounted in place, open the HINGED cover of the DCC housing. Ensure dip switch settings are correct for each input. See http://www.danmonitoring.com/library/installation and "**Installation Instructions DAN Monitoring System Model DM01 – 201** "

5. Connect probe cables in accordance with their respective wiring diagrams. Again refer to http://www.danmonitoring.com/library/installation and "**Installation Instructions DAN Monitoring System Model DM01 – 201** " All cable entries made in the DCC housing should be sealed with cable glands or similar to ensure the integrity of the housing's IP65 rating.

6. Make sure to note which probe is connected to which number input. Inputs are numbered clockwise from the bottom left to the bottom right.

7. Connect either the power pack leads or the solar panel leads in accordance with the wiring diagram. See http://www.danmonitoring.com/library/installation and "**Installation Instructions DAN Monitoring System Model DM01 – 201** "

8. **NOTE: Proceeding beyond this point in the installation will activate the system and initiate communications.**

9. Once all connections are completed, turn the DCC on using the switches located at each end of the top electronics board by moving them both outwards (away from the board).

10. Close the DCC housing cover and secure with the two corner screws.

11. If a battery pack is being used, connect it to the mains supply and turn on.

COMMISSIONING & WEB SITE SET-UP

1. On successful completion of the installation steps above, the DAN DM01-201 has been activated and communicated with the DAN Web Site. The DCC has been designed to self register, initiate programs and self commission.

2. You now need to set up your unit via the web site to perform the tasks required.

3. Identify your log on information from the material supplied with the unit.

4. Connect to the DAN website at www.danmonitoring.com and click on the 'log in' icon. (Refer to the enclosed '**Data Acquisition Networks – Accessing Your System'** information enclosed.

5. Once you have logged on and set up your system, we recommend that for security reasons, you change your password to one of your choice. Keep copies of your password in a secure place. Your password may be changed as often as you wish. The Group number may be enhanced by adding a group description suitable to you. Additional users may be added as required. Should you wish to access more than one field unit within a group by using the one login, additional field units may be added to your group.

6. Set up the 'System Properties' and 'Communication Details' by completing each input section. Accurate and complete information here will enable DAN to contact you in the event of system problems.

7. If you wish to receive alarm messages and/or instantaneous data by SMS, set up your account with Redcoal for SMS messaging. This may be schieved on the "Comm Details" page and clicking on the REDCOAL logo at the bottom of the page. When registration with Redcoal is complete, Redcoal will send an email containing information that you are required to enter in the appropriate place on the "Comm Details" page above the REDCOAL logo. (Alarm messages are sent via email to nominated email accounts and all instantaneous data is captured by the web site whether SMS messaging is activated or not).

8. Set up each input to be used including its calibration and ensure that those inputs not being used are not ticked as 'in use'. They can be turned on and set up later if required.

9. First information will be available on the web site www.danmonitoring.com approximately one to two minutes after the DCC is turned on. First logged data received may predominantly be 0's and simply confirms that the system is communicating with the web site.

Details entered into the web site may be varied at any time. The remote DCC hardware will not be updated until the next reporting period.

SYSTEM ACCESS FEE

If one month's subscription to DAN SENTRY was included in the purchase price of your DAN System, this period commenced when the DCC was first turned on and contacted the web site. This date is displayed on the web site after logging on under the 'System' – 'Properties' icons. To ensure continuation of your access beyond this first month's free subscription period, complete the enclosed '**APPLICATION FOR ONGOING WEB SITE ACCESS**' and return to DAN.

The access fee covers:

- Access to the data on the web site generated by your system
- In the case of GPRS and NEXT G communications, the cost of all communication between the system and the web site (for systems located within Australia).
- Distribution of emails on alarms
- All upgrades of software

The access fee *does not* cover:

- **additional transmissions between the web site and other devices**
- **SMS messages.**

SYSTEM FEATURES

The DAN Monitoring system can be programmed to send data to the web site as often as required (the reporting period) with a minimum time between transmissions of 30 minutes. Should data be required more frequently, this may be arranged at additional

cost. Contact DAN for information and costs. (Under normal operating conditions the reporting interval should not be set to greater than 45 minutes.

Alarms may be set based upon the data the DCC measures and are recognised immediately by the DCC. Alarms permitted are two per input and each alarm may be individually set either as a maximum or minimum limit to suit your needs. When alarm conditions are reached, the DCC will recognise the alarm and communicate the alarm condition to the web site immediately, subject to the delay period specified by you. If selected, alarm conditions can be relayed to you via email or via up to five mobile telephone handsets in SMS form. (Note that costs of SMS transmissions are not included in the DAN SENTRY fee and are covered by your agreement with Redcoal).

Similarly (if you select) when the alarm condition clears, the web site will transmit the reset message.

When required, instantaneous readings may be obtained from the system (refer 'operating the system' below)

WARNING*:* ***The DAN system is capable of providing web site derived functions calculated from information received from the DCC at each reporting interval. If alarms are set based upon these derived functions, alarm conditions will not be recognised until the end of the next scheduled DCC reporting period.***

OPERATING THE SYSTEM

WEB SITE: Once the web site is set up, you may view or retrieve the data as often as you need by logging on and referring to the 'search' page. Remember that data will be stored on the web site for 90 days only, at which time it will be progressively discarded. Ensure that data is copied and stored on a local medium should history beyond 90 days be required. (Data on the search page may be copied and pasted into any Microsoft product).

DAN may be able to assist if data is required to be stored on the web site beyond 90 days. Contact DAN for details and costs.

INSTANTANEOUS UPDATE: If you wish to know the instantaneous data being gathered by the system at any time, this may be readily accessed by the following method.

To retrieve data by mobile telephone call:

1. Ensure that the calling mobile phone number is registered on the 'Comm Details' page on the web site. (Refer: **System Set Up, Operation & Maintenance Instructions'**)
2. Call the telephone number assigned to the system (this number is found on the 'System' –'Properties' page. The call **must** be made from one of the approved telephone numbers entered on the 'System' – 'Comm Details' page.
3. Listen for the 'ring' tone.
4. Hang up the call after three rings but no more than four rings.

Within 30 seconds, (depending on SMS messaging availability) the instantaneous data being read by the system will be sent to the approved mobile phone that made the request. Data sent will be stored on the web site for later reference and may be accessed via the 'Search' page and requesting 'instantaneous data'.

The accessing of an instantaneous update will not affect the information sent to the web site at the end of the next reporting period.

REMOTE RESET: If you wish to reset the device remotely (turn it off and then back on), this may be readily achieved by the following method.

To reset the field unit by mobile telephone call:

1. Ensure that the calling mobile phone number is registered on the 'Comm Details' page on the web site. (Refer: **System Set Up, Operation & Maintenance Instructions'**) the phone must be set to send the calling number.
2. Call the telephone number assigned to the system (this number is found on the 'System' –'Properties' page. The call **must** be made from the approved telephone number entered on the 'System' – 'Comm Detailss' page.
3. Listen for the 'ring' tone.
4. Hang up the call after six rings or wait for the call to be disconnected.

MAINTENANCE

The system supplied by DAN is designed to operate in the conditions as specified. It will only operate effectively if it is adequately maintained.

Probes should be cleaned in accordance with the probe manufacturers' instructions. Probes should be inspected regularly for signs of damage. The timing between cleans may be varied with experience dependant upon the particular location and application conditions. Remember that the accuracy of measurements will be adversely affected if the probes are allowed to foul.

If applicable, clean the surface of any solar panels using **clean water only and a clean cloth**. The use of cleaning solvents or chemicals may deposit a film on the collector surface and reduce effectiveness.

Batteries should be changed at yearly intervals with identical parts available from DAN or your local DAN distributor.

DAN
DATA ACQUISITION NETWORKS