

**NEMTEK**  
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# Druid LCD 20

Fence Monitor

## User Manual



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# Introduction & company profile

## INTRODUCTION

Thank you for choosing our product! The NEMTEK Druid LCD 20 fence monitoring system is designed and manufactured to provide many years of reliable use, if installed and maintained correctly. The guidelines provided in this manual will assist you with the basic operation and maintenance of your unit.

Currently this product is designed and manufactured in South Africa for the South African and international markets. More information on our products and general information are available on our web site at: <http://www.nemtek.com>.

## COMPANY PROFILE

The NEMTEK Group of Companies manufacture and distribute intelligent electronic agricultural fencing systems, security and perimeter control systems and have been involved in the security industry since 1990.

We have our own research and development team, designing and manufacturing a full range of globally competitive electric fence energizers and related products.

NEMTEK is continually updating its products according to South African and international standards in order to ensure the highest quality products and continuous customer satisfaction.

### **GUARANTEE**

The Druid LCD 20 fence monitoring system, manufactured by NEMTEK, is guaranteed for a period of two years from date of sale against defects due to faulty workmanship or materials.

NEMTEK will, at its discretion, either repair or replace a product that proves to be defective.

NEMTEK guarantees that the product, when properly installed and used in line with the specification as determined by NEMTEK from time to time, will execute its function of generating a suitable potential. NEMTEK does not guarantee that the operation of the product will be uninterrupted and totally error free. Faulty units must be returned to one of the NEMTEK Group outlets. The buyer shall pay all shipping and other charges for the return of the product to NEMTEK or NEMTEK Security Warehouse.

### **LIMITATION OF GUARANTEE**

The guarantee does not apply to defects resulting from acts of God, modifications made by the buyer or any third party, misuse, neglect, abuse, accident and mishandling.

### **EXCLUSIVE REMEDIES**

The remedies provided herein are NEMTEK's sole liability and the buyer's sole and exclusive remedies for breach of guarantee. NEMTEK shall not be liable for any special, incidental, consequential, direct or indirect damages, whether based on contract, tort, or any other legal theory. The foregoing guarantee is in lieu of any and all other guarantees, whether expressed, implied, or statutory, including but not limited to warranties of merchantability and suitability for a particular purpose.

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Manufactured in South Africa

The DRUID LCD 20 should ideally be operated by means of a remote keypad to obtain access to the many monitoring features and receive the greatest protection. It can however be operated by means of a NEMTEK tab or external switch.

The unit's display will light with a blue (OFF), green (all is OK), yellow (alarm in history or other medium priority event) or red (active alarm condition exists) background to announce the system state at a glance and from a distance.


The gate input is functional even when the unit is not monitoring the fence. Use the Gate Alarm Bypass function if this input is to be ignored.


The unit includes many user and installer settings. These will be retained in the event of total power loss, like when the battery is exhausted during a prolonged mains failure. A new battery with a full charge will typically provide in excess of 24 hours backup.

### **NEMTEK Connect**


NEMTEK Druid LCD 20 units can be upgraded for remote connectivity through a smartphone application or internet browser via **NEMTEK Connect**. Contact NEMTEK for more information on the hardware and software upgrades required.

## Symbol interpretation


Fence or Gate alarm condition present: 


Fence or Gate alarm history (occurred in the past): 

Fence or Gate alarm bypassed: 

Gate is open: 

Gate alarm immediate (alarm will sound the moment the gate is opened): 

Mains power present: 

Mains fail history (occurred in the past): 

Mains power fail with internal battery condition **GOOD**: , **LOW**:  or **FLAT**: 

Unit requires servicing (if displayed for an extended period): 

Unit possibly tampered with (front cover is, or was opened): 

Unit set to silent alarm (no external siren or strobe will activate): **S**

Fence monitoring is off: 

Fence condition indication from **0** to **9** (higher values are better)

### Fence condition and voltage notes

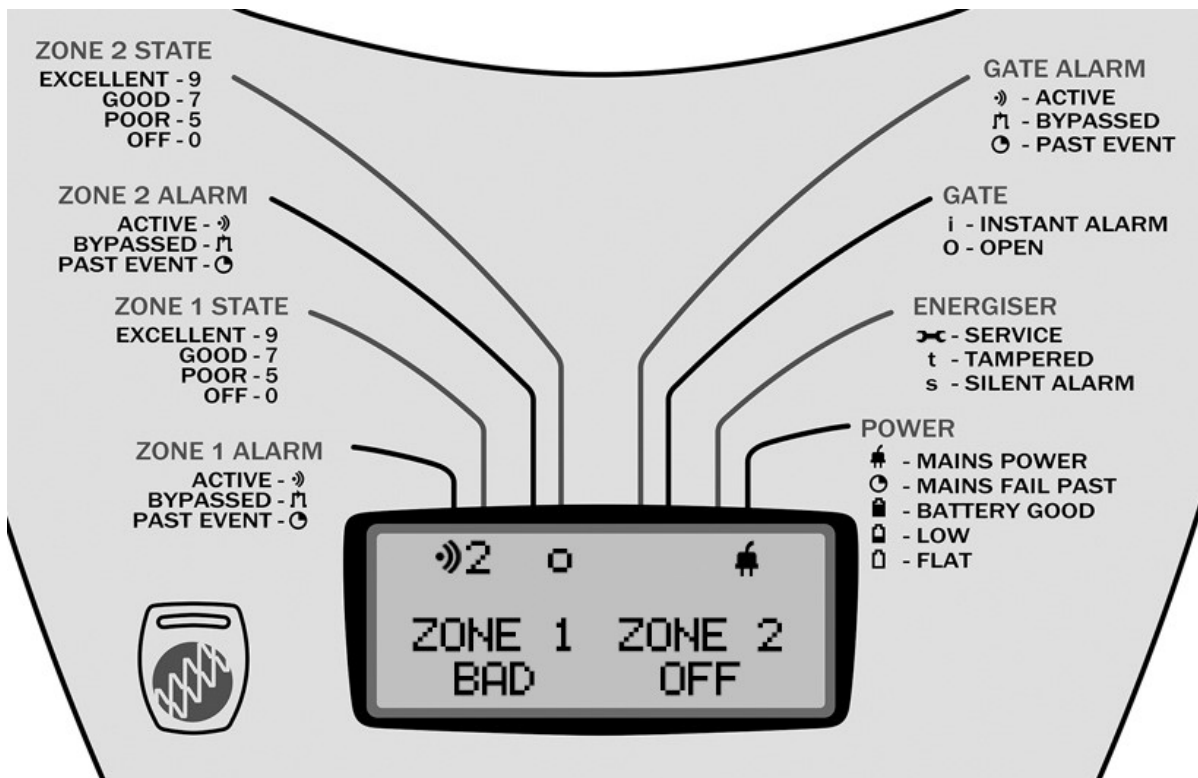
Fence voltage **CHECK** and **BAD** (alarm) thresholds are installer settable values.

The fence condition indication should be maintained at a high value for maximum fence effectiveness. This is achieved through regular maintenance of the fence, cutting back and removal of foliage from the fence, removal of dead slugs, snails, spiders and other insects from off the insulators, and replacing any insulators that may have failed.

## Symbol to descriptive label link

A symbol shown on the LCD (Liquid Crystal Display), depending on its position, is linked through one of the eight linking lines above the LCD to one of eight descriptive labels. A brief interpretation of the symbol displayed on the LCD is to be found under the descriptive label it is linked to.

Example: An **O** symbol on the top line of the LCD, depending on its position will either indicate that the gate is open, or that the fence monitor is off. If the **O** symbol is positioned on the left of the display under the 2nd linking line, the symbol is linked to the **ZONE 1 STATE** label and is interpreted to mean that zone 1 monitoring is off. If however the **O** symbol is positioned on the right of the display under the 6th linking line, the symbol is linked to the **GATE** label and is interpreted to mean that the gate is open.




The interpretations of the symbols shown on the LCD depicted above are:

SYMBOL	Linked to LABEL	Interpretation	Note
))	ZONE 1 ALARM	ACTIVE	Zone 1 fence is in alarm
2	ZONE 1 FENCE STATE	POOR	Zone 1 fence state is poor
O	ZONE 2 FENCE STATE	OFF	Zone 2 is off
#	POWER	MAINS POWER	Mains power is present







## Operation without a keypad



### Activating and deactivating the unit

Unless this feature has been disabled by the installer, the unit can be activated or deactivated by presenting the NEMTEK plastic tab over the corresponding logo  on the fascia of the unit. Remove the tab when the unit produces a short beep, after which the unit will toggle its operating state. The unit can also be configured to use a remote switch.

### Acknowledging and silencing an alarm condition

Present the NEMTEK plastic tab over the corresponding logo  on the fascia of the unit. An initial short beep will be heard as the tab is detected, but keep holding the tab in place until a second longer beep is heard. The siren will be silenced if not yet timed out, the internal beeper will stop sounding and the strobe will be deactivated. One of the alarm  alarm history  event  symbols will indicate the source of the alarm.

### Clearing an alarm or event from memory

An alarm  symbol indicates that the condition persists and will have to first be corrected. An alarm history  symbol indicates the fault no longer exists and simply turning the unit off and on again, or presenting the tab until the long beep is heard, will clear the memory condition. Only if the alarm condition is resolved will the unit operate without alarm activation.

## Operation with a keypad

The unit may be operated by up to two keypads. In this case the NEMTEK tab becomes optional (Installer programmable feature).

In order to provide different access levels to the unit and its functions, two different types of users are defined.

A **master user** has full control of the unit and may bypass different alarm functions. Only the master user may change the **PIN** (Personal Identification Number) for all users. There is only one master user with a **default PIN 1234**. The master user is referred to as **user number 1** or **PIN 1**.

A **reset user** can acknowledge and silence alarm events and clear alarms and events from history, but cannot switch the unit on or off or change any parameters or settings that require PIN access. There is only one reset user with a **default PIN 5555**. The reset user is referred to as **user number 2** or **PIN 2**.

Most user functions are accessed using the master PIN followed by a \* key, a two-key sequence, and then completed with the # (enter) key. The two key sequence consists of a function key and then a **1** (yes) or **0** (no) key to indicate if the function is to be **enabled** (yes) or **disabled** (no).

The exception to the above is the **Panic Alarm** and **Display Info** functions. Both of these functions do not need the master PIN and \* key sequence in front of the two-key sequence, however the codes will still work if the master PIN and \* key sequence is inserted.

Additionally, the Display Info function accepts more than just the **1** and **0** keys as will be detailed later in this manual.

### **Altering the brightness of the keypad symbols**

The brightness of the keypad symbols can be increased or decreased by pressing and holding the **1** or **7** key respectively. The keypad will beep while the indicator brightness is changing. No PIN is required for this operation.

## Using your keypad

All keypad codes must end with the **#** key to enter the code sequence.

If you pause for more than five seconds between key presses, the keypad will produce a fast beeping sequence and all earlier keys will be deleted.

A correctly entered sequence will be acknowledged with two beeps.




### **Activating and deactivating the unit** **MASTER PIN #**

The unit can be activated or deactivated by entering the four digit master PIN (default master PIN is 1234).



If the fence monitoring is off, the **O** symbol under the FENCE label on the keypad will be lit and on the unit's LCD, the **O** symbol linked to the ZONE STATE label will be shown.

If the fence is on, one of the **GOOD**, **CHECK** or **BAD** indicators on the left of the keypad will be lit and the unit's LCD will show **GOOD**, **CHECK** or **BAD**, depending on the fence condition.

### **Acknowledging and silencing an alarm condition** **MASTER PIN #**

Enter the reset PIN (default reset PIN is 5555). The siren will be silenced if not yet timed out, the internal beeper will stop sounding and the strobe will be deactivated. One of the alarm , alarm history  or event  symbols will indicate the source of the alarm. The above can also be achieved through entering the master PIN, however the unit's operating state will be toggled at the same time.

### **Clearing an alarm or event from memory** **MASTER PIN #**



An alarm  symbol indicates that the condition persists and will have to first be corrected. An alarm history  symbol indicates the fault no longer exists and simply entering the reset PIN will clear the memory condition. Only if the alarm condition is resolved will the unit operate without further alarm activation.

The above can also be achieved through turning the unit **Off** and **On** again using the master PIN.

## Using your keypad

**FENCE ALARM BYPASS**          **MASTER PIN** \* **2 1** # (alarm bypassed)  
         **MASTER PIN** \* **2 0** # (alarm not bypassed)

Use this feature to prevent the alarm from sounding when a fence fault occurs. Typically you would not want to bypass the fence alarm, however this feature is available should it be needed.

If the fence alarm is bypassed, the  symbol under the **ALARM** label on the keypad will be lit and on the unit's LCD, the  symbol linked to the **FENCE ALARM** label will be shown.

**SILENT ALARM**          **MASTER PIN** \* **8 1** # (siren and strobe are bypassed)  
         **MASTER PIN** \* **8 0** # (siren and strobe are not bypassed)



Use this feature to prevent the siren from sounding and the strobe light from activating when an alarm event occurs. The internal beeper will however still sound. This feature is useful in periodic testing of the system.

If Silent Alarm is enabled, the **S** symbol under the **UNIT** label on the keypad will be lit and on the unit's LCD, the **S** symbol linked to the label will be shown.  
(No **S** symbol exists on the DRUID 4-Zone keypad).

## Using your keypad

**GATE ALARM BYPASS**          **MASTER PIN** \* **4 1** # (gate alarm bypassed)  
         **MASTER PIN** \* **4 0** # (gate alarm not bypassed)

Use this feature to prevent the alarm from sounding when the gate is open for longer than the gate delay time. The gate delay time is an installer programmable time.

If the gate alarm is bypassed, the  symbol under the **GATE** label on the keypad will be lit and on the unit's LCD the  symbol linked to the **GATE ALARM** label will be shown.

**GATE ALARM INSTANT**          **MASTER PIN** \* **7 1** # (gate alarm instant)  
         **MASTER PIN** \* **7 0** # (gate alarm delayed)

Use this feature to cause the alarm to sound the moment the gate is opened without waiting for the gate delay time to expire.

If the gate alarm is instant, the **i** symbol under the **GATE** label on the keypad will be lit and on the unit's LCD the **i** symbol linked to the **GATE** label will be shown.  
(No symbol exists on the DRUID 4-Zone keypad).

**GATE CHIME**          **MASTER PIN** \* **5 1** # (gate chime enabled)  
         **MASTER PIN** \* **5 0** # (gate chime disabled)

Use this feature to sound an alert when the gate opens. When enabled the internal beeper will sound three beeps the moment the gate is opened. The gate alarm will continue to function as configured.

No symbol exists on the keypad or unit to indicate that this function is active. Enable or disable this function as needed.

## Using your keypad

**SERVICE ALARM BYPASS**                 **MASTER PIN** \* \* **1** # (bypassed)  
                **MASTER PIN** \* \* **0** # (not bypassed)

Use this feature to prevent the alarm from sounding when a service condition exists. A service condition may occur for a short duration after a prolonged mains power failure. If however the service condition persists, it could be that the battery needs replacing or some other element of the unit or fence installation needs servicing. Please call your installer. If your installer has programmed their contact number into the unit, and enabled this feature, the number will be displayed during a service condition.

No symbol exists on the keypad or unit to indicate that this function is active. Enable or disable this function as needed.

**PANIC ALARM**                      **9 1 #**

Use this feature to manually trigger an alarm in an emergency.  
No PIN is required.

**CHANGING A USER PIN**                 **MASTER PIN** \* **0 ?** # (start change user PIN)  
                **NEW PIN**    # (enter new PIN)  
                **NEW PIN**    # (confirm new PIN)

To change a user PIN requires three key code sequences in succession.

Depending on which PIN is being changed, either a **1** (master user) or a **2** (reset user) should be placed in the position indicated by the **?** above. Following the first start change user PIN sequence, a new four digit PIN should be entered followed by the **#** key. The same four digit PIN should be entered a second time, followed by the **#** key to confirm and complete the PIN change sequence. If successful, the new pin will be confirmed with two beeps. If the process fails, a single long beep will be heard, in which case the process should be started again from the beginning. If however you are aware that you made a mistake in entering the PIN the second time, simply re-enter the PIN correctly a third time and listen for confirmation or failure as described.

## Using your keypad

### DISPLAY INFORMATION

6 ? #

Replace the ? above with the required digit for the information you want displayed as listed below.

- **GOOD, CHECK, BAD**

6 0 #

This is the default display as shipped from the factory and shows the words **GOOD**, **CHECK** or **BAD** dependant on fence condition.

- **GOOD, CHECK, BAD WITH AUDIO FEEDBACK**

6 1 #

Shows the words **GOOD**, **CHECK** or **BAD** depending on fence condition, with the internal buzzer pulsing every second. The buzzer frequency is also dependant on the fence condition, with a higher frequency indicating a good fence and a lower frequency indicating a bad fence.

- **FENCE RETURN VOLTAGE**

6 0 #

The display shows the return voltage from the fence in volts (**V**).

- **BATTERY VOLTAGE**

6 4 #

This display shows the internal battery voltage level in volts (**V**).

No PIN is required for the Display Information code as no operating parameters are altered.

## Keypad zone focus

The DRUID LCD 20 unit contains two independent output channels or zones. Rather than having to install a keypad for each zone, a method to focus the keypad onto a specific zone has been programmed into the unit.

Up to four zones (two DRUID LCD 20 units, or 1 DRUID LCD 20 and 1 DRUID D2x energizer, or two DRUID D2x energizers) can be controlled from a single Druid 4-Zone keypad.

The 4-Zone keypad includes four **ZONE** labels, and one **SELECT** label. When one of the **ZONE** labels is lit, all keypad activity is directed to that zone and the unit or energizer controlling that zone. The keypad displayed zone alarm and status information is specific to the highlighted zone.

The keypad focus can be changed from zone to zone by typing in a single digit representing the zone, followed by the hash/enter (**#**) key.

For example;

**1#** changes the keypad focus to zone 1 and the unit/energizer controlling both zone 1 and zone 2

**4#** changes the keypad focus to zone 4 and the unit/energizer controlling both zone 3 and zone 4

To change the keypad's focus to all zones so that keypad activity is directed to both units or energizers and so that all four zones respond, type **0#** into the keypad.

While in global focus and normal conditions exist on all zones, no **ZONE** label will be highlighted on the keypad. The keypad displayed zone alarm and status information will be the sum of all zone information displayed simultaneously, while in global focus.

The keypad will always revert back to global focus after about 30 seconds of inactivity. A short beep from the keypad will announce this transition.

However, if any zone requires your attention due to a zone alarm or past event, that zone's **ZONE** label will flash and the **SELECT** label will light up, prompting you to change the focus of the keypad to that particular zone, so that you can assess and respond to the condition present at that zone.

### **Note:**

When activating all zones while in global focus, if any zone is already active, the result will be that all zones become inactive. To activate all zones or deactivate all zones simultaneously, the zones must all be in the same state to begin with.



## Document revision history

**Rev 1.0, 12 January 2021**

First release.

**Rev 1.1, 20 January 2022**

Key code for fence return voltage display added.

**Rev 1.2, 10 May 2022**

Nemtek Group Outlets updated.

**Rev 1.3, 22 May 2022**

Front page heading changed.