# **PCD Maltron**

# Single Hand Keyboard Range-DK (Left & Right)





# **User Manual**

### For models

RS10N1G-DK RS10N1B-DK LS10N1G-DK LS10N1B-DK

# PCD MALTRON SINGLE HAND RANGE USER MANUAL

#### Model: SINGLE LEFT & RIGHT KEYBOARD

Welcome to your new Maltron keyboard.

We hope you will find that your new keyboard quickly makes a positive improvement in your ability to access computers and enjoy the benefits of ever-advancing computer functionality.

Please share your experience with us by letting us know your progress, and tell us of any ideas for improving the keyboard range further.

Thank you in anticipation.

For sales & service please contact your local agent / importer, or contact:

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Information in this User Manual is subject to change without notice.

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### 1. Before-Use Information

#### 1.1 GUIDANCE AND WARNINGS:

We are confident that you will quickly notice the benefit of using a Maltron keyboard, which is specifically designed with ergonomic considerations to ensure ease and comfort in its operation.

However, it is important that the keyboard is used in a suitable context, with regard to the position and set up of the workstation and the general environment in which the keyboard will be used. It is advised that an occupational health professional carries out a full workstation risk assessment.

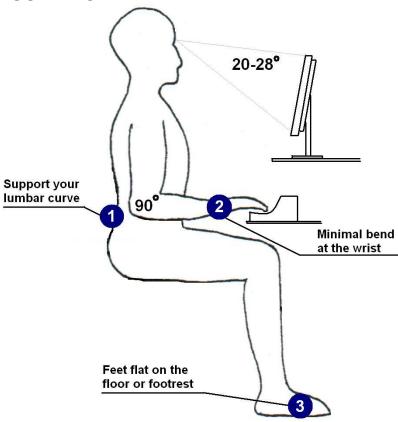
Always follow guidelines for using computer equipment from the Health & Safety Executive <a href="http://www.hse.gov.uk/toolbox/workplace/designing.htm">http://www.hse.gov.uk/toolbox/workplace/designing.htm</a> .



If you begin to feel any symptoms of a possible strain injury, visit your doctor as soon as possible.

As a single hand user please be aware of increased risks of Repetitive Strain Injury (RSI) or other related physical conditions. Although your Maltron keyboard has been ergonomically designed to ensure maximum comfort levels it is important plenty of breaks are taken to avoid overuse. Over the 35 years our keyboards have been in use, we have reports of users gaining increased movement and significantly higher comfort levels while using a Maltron keyboard.

#### 1.2 POSTURE GUIDANCE:



#### 1.3 KEYBOARD TRAINING AND POSITIONING:

The single hand keyboard has been specifically designed for users who wish to, or can use only one hand to operate a keyboard. You will find the keyboard is easy to learn and that it will make it possible for you to achieve a good speed with accuracy. (Speeds of 60 wpm have been achieved).

Due to the keyboards ergonomic shape your fingers will very quickly learn to feel when they are on the 'home' row that is the row on which they should rest. This row is S, (for the thumb), A, T and H for the fingers.

The most commonly used letters are on the home row and the other letters of the alphabet have been placed so that finger movements to and from the home row are the easiest that could be arranged. This helps with learning where each key is located and keying easy and fast. The online training exercises; also available with the keyboard on the resource disc; have also been especially designed to imprint the letter positions.

# It is highly recommended that the training modules are completed as this will aid familiarisation.

As you will be using only on hand it is important to position the keyboard correctly to avoid tiring the hand.

The keyboard has a very small downward tilt to one side. This is designed to avoid wrist ache. Arrange the keyboard so that the corner where the thumb keys are, touches the nearer edge of the table and the front edge of the keyboard slants at 35° upward, away from you.

Your seating position is also very important. See the diagram above for good posture which will ensure you achieve the right angles required to guarantee you have the right seating position. You should have four right angles – 1. At your elbow. 2. At your hip joints. 3. At your knees. 4. At your ankles. This will mean your back, thighs and calves will be in straight lines and your feet will be flat on the floor.

Your chair should have a supporting backrest and be height adjustable. Sit high enough at your table to maintain the 90° right angle at your elbow. If you maintain this position you will be able to key for long periods of time without feeling undue physical strain.

Always try and relax and ensure plenty of breaks are taken to avoid overuse. Tired muscles take a long time to recover. Limit your typing to a couple of hour at a time.

We hope you enjoy working through the training exercises and that you will quickly begin to enjoy the freedom that comes with easy typing.

#### 1.4 OPERATION:

The table and chair height should be low enough so that the body is positioned with right angles at ankles, knees, back and elbow. The keyboard should be placed on the desk or table so that the thumb group is directly in front of the operator and then turned to give a 20 - 40 degree angle between the table edge and the front line of the keyboard.

The thumb corner should be just above the table edge. Above all the wrist should be straight and thumb movement between the Space and Shift keys should not require wrist movement. Hold the palm of the hand 1-2cms above the resting pad when keying but drop it back onto the pad to relax the hand and arm whenever you stop for 'thinking' time. Leave the fingers lightly resting on the keys

The operating posture must be comfortable, since this indicates a position of minimum static muscle tension and therefore longest freedom from fatigue. Be sure to relax the hand and arm frequently. Go to the online training course at <u>www.maltron.com</u> for more information on the correct use of each finger, plus training exercises. Follow the instructions carefully to ensure that in learning the keyboard you achieve the greatest speed and accuracy with the least amount of effort.

#### 1.5 LETTER KEYS:

The letter allocation to the keys is based on a careful analysis of finger movement and sequential operation to minimise the successive use of one finger. Such use slows down keying speed, since a definite time of approximately 0.15 - 0.2 of a second is needed for a finger nerve pathway bio-chemically to reset before the next operating instruction from the brain can be acted upon.

Thus as far as possible the letter layout has been arranged so that frequently used letter sequences call for the use of different fingers and the allocation also takes into account the work load imposed on them.

#### 1.6 LED DESCRIPTIONS:

There are 7 LED's on the keyboard-All Green LED's.

- 1. POWER set LED on signifies there is power to the keyboard
- 2. SCR LOCK set LED on to activate a toggle switch to control scrolling
- 3. NUM LOCK set LED on to operate the number pad

4. FUN LOCK – set LED on to switch between two layouts

5. CAPS LOCK - set LED on for all alphabetic characters to appear in upper case

6. ALT – set LED on, will, in the same way as CTRL and SHIFT keys, change the meaning of the key you press when it is held down at the same time

7. CTRL – set LED on, will, in the same way as ALT and SHIFT keys, change the meaning of the key you press when it is held down at the same time.

#### 1.7 KEY FUNCTIONS:

Your keyboard has several functions built in that allow the user to change the characteristics of how the keyboard operates.

#### STICKY KEYS and LATCHING:

This function allows the Shift, Ctrl or Alt keys to stay selected without the need to hold the key down. Sticky Keys function is selected by pressing the SHIFT key **TEN** times. This will activate Sticky Keys in Windows. Your keyboard also allows for key latching by pressing the **SHIFT** key once and then selecting the desired key. Once this operation is complete latching is deactivated. Repeat the process for more latching.

#### DELAY:

Delay can be added to each key to allow the user to only send the key they want, where other keys may accidentally be pressed. The length of delay can be adjusted to suit the user.

1.0 sec delay: Fun Lock, Alt + 1
1.5 sec delay: Fun Lock, Alt + 2
2.0 sec delay: Fun Lock, Alt + 3
2.5 sec delay: Fun Lock, Alt + 4
3.0 sec delay: Fun Lock, Alt + 5

Turn off delay: Fun Lock, Alt + 0 (Zero)

### ONE-SHOT:

This function only allows a key to send a character once, i.e. no character repeat if a key is held down. To turn on One-Shot press Fun Lock, Alt + O. To turn off press Fun Lock, Alt + N.

#### REPEAT RATE:

This function allows you to adjust the speed at which a character repeats when you hold down the key. To turn on Repeat Rate press Fun Lock, Alt + S (Slow), or M (Medium) or F (Fast). To turn off press Fun Lock, Alt + N.

In this mode the Windows key is deactivated and can be reactivated by selecting Fun Lock, Alt + N.

#### 1.8 FUNCTION KEYS AND THE NUMBER PAD:

This model of the MALTRON Single Handed keyboard has the Function keys mounted along the top of the keyboard where they are easily visible. They operate in exactly the same way as the usual arrangement.

The Locking Keys – CAPS LOCK, SCROLL LOCK AND NUM LOCK can be activated by set **ON** which will be indicated by the LED being lit.

The special cursor keys are mounted at the top of the thumb group where they are easily accessible. This will be useful when working with figures all the time.

#### 1.9. SWITCHING BETWEEN LAYOUTS:

Not currently available with this product.

#### 2. TRAINING

We strongly recommend **that** anyone using a Maltron keyboard for the first time **should** read and follow the **FREE** online training module by going to <u>www.maltron.com</u> and selecting the 'TRAINING' tab.

If you are unable to access the online training, we provide a resource disc with the keyboard which includes the training modules.

#### **3. SETTING UP THE KEYBOARD**

#### 3.1 PLUGGING IN:

The keyboard is connected to your computer by a USB (Universal Serial Bus) cable, supplied with your keyboard. As the cable is not connected to your keyboard please follow A, B & C below:

- a. Push the 'plug' end with ferrite core of the cable into your Maltron Single Hand keyboard.
- b. Push the other end of the cable 'plug' into an available USB port socket on your computer.
- c. Position your keyboard to a comfortable position. (See 1.3 & 1.4 for recommended positioning).

Chere are no drivers or any software to load onto your computer!

#### 3.2 COMMON CHECKS:

- Make sure your computer is plugged into an AC electricity source.
- Make sure your keyboard cable is securely fitted at both ends, and that the 'Power On' LED is lit. To confirm connectivity, press the '**Num Lock**' key and ensure the 'Num Lock' LED illuminates. This confirms communication between the computer and the keyboard.
- If there is a failure of any sort, disconnect any other USB devices (not your mouse or Single Hand Keyboard) and then restart your computer.

#### 3.3 REPORTING FAULTS:

If you are unable to resolve any faults or problems with your keyboard please contact your IT support staff in the first instance, or call +44 (0) 845 230 3265 or Int: +44 1785 785525. Alternatively, email <u>sales@maltron.co.uk</u>.

#### 4. KEYBOARD CLEANING

# PLEASE DISCONNECT THE KEYBOARD FROM MAINS POWER BEFORE CARRYING OUT MAINTENANCE.

The outer shell and other external surfaces can be wiped clean with a soft damp cloth. Do not use any cleaning solvents on your keyboard. A weak solution of regular washing up liquid can be used if necessary.

You can remove the key caps to access the switch panel. This allows cleaning of the switch panel, again with a soft damp cloth. One of the many advantages to owning a Maltron keyboard is the keyboard can be rinsed under a warm tap to wash away liquid stains such as tea, coffee or juices.

# 5. STATIC AND YOUR KEYBOARD

Static electricity in your office is very erratic and will change from day to day with the weather, with the central heating and with ventilation. It also changes with the clothes worn by people in the office (nylon is one of the worst) and the number and types of VDUs you use. It often collects on objects such as curtains, light switches and VDU's - depending on air circulation. You need to know this so that you can identify if any factors in your office are causing a build up of static.

Static shocks are usually noticed when you hear crackling (try wiping a dusty TV or VDU screen after it has been on for a while). However, "small" static shocks of 50 or 100volts go largely unnoticed by humans, but if this hits digital electronic equipment, then the equipment often cannot cope and becomes unreliable.

Like any piece of electronics, the Maltron keyboard does not like being hit with static. However unlike most other pieces of electronic equipment, it is touched every day by people who move around picking up static charges from computer VDUs, curtains, chairs and carpets. Even just taking off a coat with a nylon lining or getting up from a chair, can charge a person up several 1000 volts. If the charged person then touches the keyboard immediately, its electronic brain gets a shock. To avoid this particular problem, always touch an earthed body before the keyboard when starting work, and do not have your hand on the keyboard when getting up from your chair.

We protect against such shocks with good screening of signal lines and using insulating plastic. If your keyboard is working most of the time, but occasionally resets or beeps or just goes crazy, then static is the first suspect. This is particularly true when the keyboard's performance changes from day to day for no obvious reason.

The best way to solve the problem is at source. To do this you have to find where the problems are coming from. For example, it could be when you operate the blinds in the office, or rise from your chair, or walk across the carpet and sit down. Then you should be careful not to touch the keyboard until after you have touched something that is well earthed such as the metal case of the computer.

Another example - it could be that you have to move an office fan to point away from your desk. In general, these options need experiment and whilst they are the cheapest, they need more patience.

The most popular way of solving the problem is with antistatic mats which are wired to the computer case, water pipes, or some other well grounded metal. There are mats for the floor, or alternatively there are mats you can use on your desk under the computer and keyboard.

Another way to solve the static problem is to use an anti-static spray. This can be sprayed lightly over the surface and will help to carry static away from the area. One spraying usually lasts a few weeks and is easy to apply. This can benefit in another way in that it reduces static problems experienced with VDUs causing charged dust to be blown into the face of the user, too little to notice, but enough to dry out skin and tire the eyes. This is not usually a problem with flat screens.

Spraying your keyboard

We suggest an anti-static spray such as Johnson's Sparkle or another anti-static polish.

First use a soft brush (such as a new 25mm paint brush) to loosen any dust down between the keys and then hold the keyboard up and give it a good blow to remove any trapped dust. This ensures that a sticky deposit does not build up between the keys which could stop the keys working. Next, spray the keyboard all over the top surface to dampen it slightly. Then use the brush to spread the fluid down among the keys and all over the surface. Allow the spray to dry off completely before using the keyboard (ten minutes or so). Keep the spray and brush together in a bag and repeat the application every 3 or 4 weeks, or whenever a static problem occurs.

This will also help keep your keyboard clean. Anti-static wipes can be used about once a week to rub over the front surfaces and key tops. After wiping the keyboard also wipe the VDU and the surrounding plastic frame.

### 6. USING THE NUMBER PAD AS A MOUSE (IN WINDOWS)

The Maltron Single hand Keyboard has specially labeled keys to enable you to make the most use of the "Accessibility Options" found within Microsoft Windows. One of these functions is the ability to use the number pad keys as a mouse controller; with the number 5 being used for a click/double click function. According to your system, you may need the Num Lock on.

To use this feature (in Windows XP and earlier versions), open the Control Panel via the Start menu (see the image on the next page). Click on the **Accessibility Options** link, and on the same named link in the resulting window, to see the Accessibility Properties window shown below. Select the **Mouse** tab and tick the 'Use MouseKeys' box and click OK.

Under Windows Vista<sup>™</sup>, the process is similar in principle. From the Control Panel select the **Ease of Access** link, then under the heading Ease of Access Centre click the link **Change how your mouse works**. On the resulting 'Make the mouse easier to use' window, tick the box 'Use MouseKeys' and then Apply.

For Windows 7 & 8, please refer to MS user guide.

There are a number of other useful features to be found within the Accessibility Options/ Ease of Access. We recommend that you explore these.

# 7. COMPLIANCE

#### EC Declaration of Conformity

In accordance with EN ISO 17050-1:2004 PCD Maltron Ltd of Castlefields, Stafford, ST16 1BU in accordance with the following Directive(s): 2006/95/EC 'The Low Voltage Directive' 2004/108/EEC 'The Electromagnetic Compatibility Directive' hereby declare that: RS10N1G/B & RN10N1G/B are in conformity with the applicable requirements of all applicable Essential Requirements of the Directives.



#### FCC Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by



turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1. Re-orientate or relocate the receiving antenna
- 2. Increase the separation between the equipment and receiver
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- 4. Consult the dealer or an experienced radio/TV technician for help

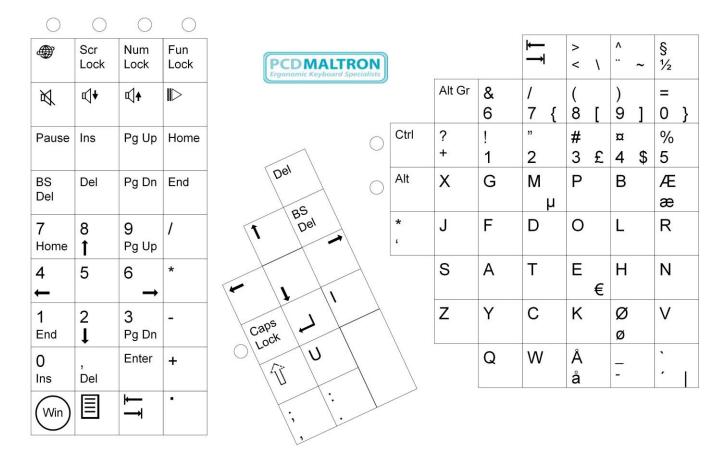
#### Warning

To assure continued FCC compliance, the user must use only shielded interfacing cables when connecting to computer or peripheral. Also, any unauthorized changes or modifications to this equipment may void FCC Compliance.

# **Appendix A: Keyboard Layouts**

#### Single Right hand Keyboard – DK

Esc	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Prt Scr
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#### Single Left hand Keyboard – DK

						F	0	F4		F5	F6	F7	F8	F9	F10	F11	F12	Prt Scr	
																0	0	0	0
2	^ 	~	< >	١	₩ →							PCDM Ergonomic Key				Fun Lock	Num Lock	Scr Lock	<b>H</b>
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	" 2	•	# 3		¤ 4	\$	% 5		? +	Ctrl	0					Home	Pg Up	Ins	Pause
E e	В		Ρ		М	μ	G		Х	Alt	0	L	Del	7		End	Pg Dn	Del	Back Space
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# **Appendix B: Keyboard Specification**

Dimensions: L300mm x W220mm x D110mm	
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Weight: approx. 0.75kgs