DARK DEER TIMERS

for

Show Jumping

Product Overview

Preamble

Copyright Notice & Disclaimer

Dark Deer Timers

Simple & Easy to Use Time after Time

Professional Show Jumping Timing Systems are now available for Competition centres both large and small at an affordable price. Over 160 equestrian centres have chosen Dark Deer Timers in the UK, Ireland, Portugal and Holland – and the number is growing every month.

Dark Deer Timers employ a novel gate technology which makes alignment extraordinarily quick even when the gate units are 50 metres apart. The control box is very simple with clearly labelled buttons. You can easily add an external wireless LCD display so spectators can share the excitement of a jump-off.

The Products:

- The basic package includes a control box and two sets of gates as shown above.

- Buy an extra set of gates for single and two phase competitions.

- A waterproof wireless 7 colour LED Matrix Display with 11" characters visible from a distance of 100m in bright sunlight is available so spectators can share in the excitement

- Modern Lithium Ion batteries are used giving an effective usage time of 48 hours and they can be charged from a USB charge station, a computer or a car. All gate units have a battery condition indicator.

- We supply an 8 x channel USB charging unit, cables and standard tripods. You can use the system straight out of the box and it is wireless so there are no cables.

- You can use Dark Deer Timing in up to 9 different arenas simultaneously using the 9 frequency channels available.

Properties

- They are very small and very light but accurate to 1/100th second and with all the features you need.

- Everything is wireless so there are no cables between the gate units, the control box and the display.

- The maximum distance between the gates and the control box is 120m – extendable to over 300m with the external antenna; the distance between the two gate units may be up to 50m.

- The control box can be connected to your PA system via a jack plug to sound the bell.

- The system can run Class types Tables A and C, in single phase and two phase mode with an optional 45 second countdown.

- Time Faults can be automatically calculated for both BS and FEI rules

- You can "cross the beams" therefore avoiding all the problems with course design when this is not possible; this applies particularly to smaller arenas.

Why Dark Deer Timers?

Apart from their quality, features and price, our Timers have found favour with many judges, course builders and show centre owners. They have been used as the official timing at the Pony Club Inter-Branch, the Blair International Horse Trials and the British Showjumping National Championship at Stoneleigh and they created a good impression:

❖ "I was very impressed, such an easy set of equipment to use & very user friendly. An excellent set of timing equipment that is sensibly priced & I would happily recommend to anyone buying". Diane Beaumont – BS Level 4 (Median) Course Designer

❖ "We used Dark Deer timing in the main International arena at Blair. The Timing was Innovative, Professional and very easy to set up." Colin Hexley BS Course Designer for Blair Athol International Horse Trials.

❖ "Thought it was very good, would work with it happily anytime". Doreen Blackie Level 3 (2*) BS Judge

❖ "Having used Dark Deer Timing for 2 days of Showjumping and 1 day timing Eventing, I found it very easy to set up and the working of it to be very reliable and would highly recommend the set." John Ormiston Level 4 (Median) Course Designer, Level 2 (1*) Judge
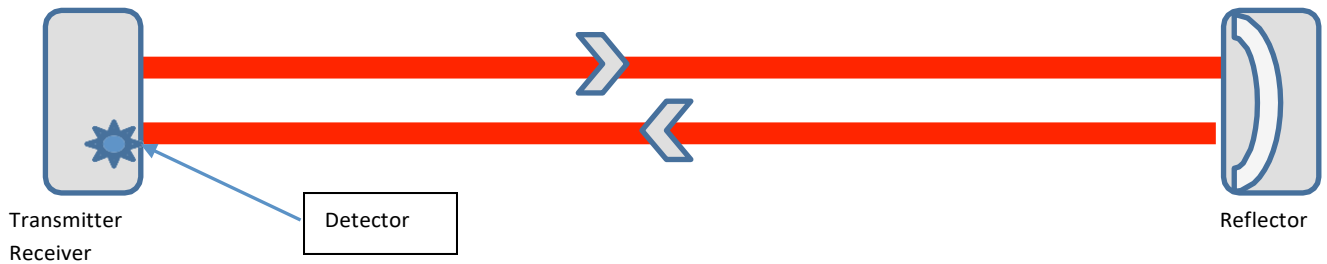
Dark Deer Timers have become the "go to" Show jumping Timing systems because, as our customers tell us, the product is:

● Modern, innovative and uses the latest technology.

● Half the price of our nearest competitor!

● Easy to set-up, configure and use.

● A simple, well designed control panel

● Completely wireless and portable

● Reliable and with extended warranty support

Product Details - The Gates

Dark Deer Timers are based on the latest infra-red technology which makes them accurate and very quick and easy to align.
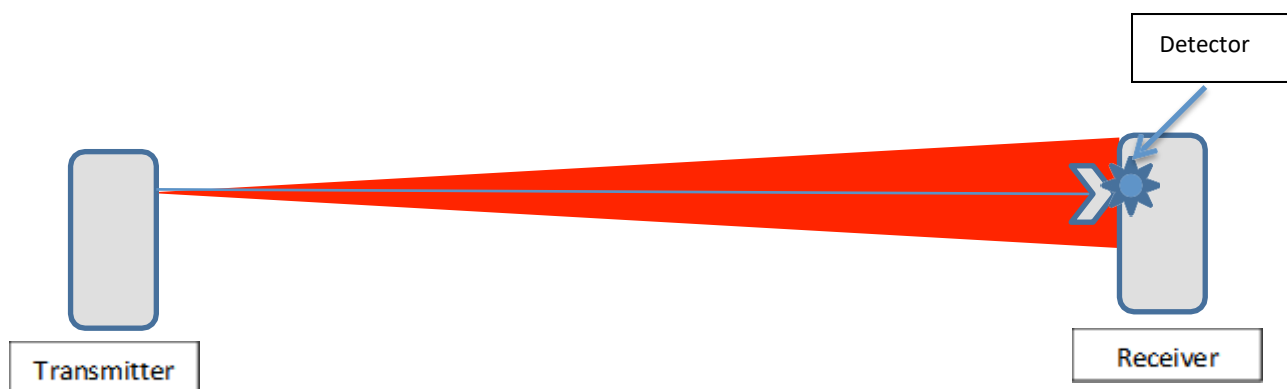
Traditional Systems

| Transmitter Receiver | Detector | Reflector |

Most timers use a transmitter to send an infra-red beam across the horses path to a reflector as shown in the diagram above. The reflector sends the beam back to a detector in the transmitter box. When the horse breaks the beam, the transmitter sends a signal to the control unit. The boxes have to be aligned so that the narrow beam hits the detector exactly after being reflected. It is like trying to focus a light onto a small spot with a mirror but, because it is infra-red, you cannot see the light. Tricky, especially if the mirror is 30 metres from the spot you are trying to hit! It is not surprising that people can take up to 15 minutes trying to align these devices, they are also susceptible to wind and small disturbances.

Dark Deer System

| Detector |
| Transmitter | Receiver |

As shown in the picture and the diagram above, Dark Deer Timers have a separate transmitter and receiver; there is no reflector. Furthermore, the transmitter sends out an infra-red beam which widens with distance, at 20 metres the cone is 1 metre wide. All you have to do is place the receiver within the "cone" of the beam and the alignment is done. At a distance of 20 metres this took 4 seconds and at 40 metres it took 20 seconds. Within the cone, the detector in the receiver responds to just that very narrow part of the beam that hits it directly shown by the arrowed line in the diagram, so there is no loss of accuracy. The system will beep if it is not aligned and send a message that is displayed on the judge's control panel.

Is there a downside? Not really, but the receiver as well as the transmitter contains 2 lithium batteries which have to be charged but being Lithium Ion they last for 48 hours between charges. All our units, gates and controllers are charged through a mini-usb port for which we supply a suitable charger.

Product Details – The Control Panel

Dark Deer Timers are easy to use but do not lack functionality. The control panel has been designed by a User Interface specialist so that people can learn to use it in 10 minutes and errors during operation are minimized.

It is no use making the gates easy to use if the control panel looks like the cockpit of a jumbo jet. Ours contains 8 coloured buttons and a couple of switches which allows all Class types to configured and judged as required. Everything is shown in the Display Window and the console is easy to use.

The "Config" button allows you to configure the console very quickly. There are options to change:

- Display Brightness
- Competition type
- Time allowed/time fault calculation
- Channel number and bell sound
- 45 second countdown required or not

The operator presses "Start/Stop" and "Bell" when the rider enters the arena and everything is ready. The bell sounds and the display shows "New Rider" and if a 45 second countdown was chosen, the display will show this countdown. As the rider approaches the first gate, the "Arm" button is pressed and the display shows "Waiting – S Gate", then the timing starts when the beam is broken. The rest of the Gates are armed as the competitor approaches and the split times for each section are displayed and stored on the console as well as being shown on the Arena displays.

The control panel lights are illuminated when a gate is armed or when the gates have lost alignment. When the latter happens, a message appears on the CP display and the lights above the offending gate are illuminated.There is a "Memory" button just in case you forget to arm the gate at the correct time, and the "START/STOP"button will pause the timing if the Competitor disturbs the course and then continue from where it stopped when the course is ready.

There are two connections on the console; a jack plug socket to connect to a PA system and a mini USB connection which is used for both charging and uploading new versions of the software.

Product Details – External Display

Our external display is comprised of panels each 32cm x 16cm (12" x 6") and the standard configuration is 3 panels wide by 2 panels high measuring 96cm x 32cm (3' x 1'). However, you can order whatever size you require (within reason!) and as the panels contain a matrix of LED's, you can display numbers, letters and even simple graphics. The standard display has seven colours from which to chose: red, yellow, magenta, green, blue, white and cyan using a button on the side of the display. The display shown below is using cyan.

The display is waterproof and strongly made. It is powered either by a mains power supply or by 12V DC from a leisure battery connected to an inverter which generates 240 V AC. As the display is wireless you can move it around the arena as long as it is within 150 metres from the control panel. You can also use multiple displays as they will all receive the same wireless signal and therefore be automatically synchronized.

The standard configuration has 28cm (11") high characters but the larger displays can display much bigger characters if needed. The standard configuration is ideal for arenas up to 100 metres in length.

A larger display is shown on the left. Note that the time is displayed in a large font and the rider and horse's name are shown below in different colours. This display has been mounted in a frame but could equally well be suspended against a wall. It measures 128cm x 96 cm (4' x 3') and is clearly visible at well over 100 metres. "Showmanager", our own integrated Show Management software , integrates with the timing and the small and large displays, to provide the Rider and Horse names

Product Details – Accessories

Tripods

You can use any tripods which have a standard camera fitting but we do supply these and our standard tripod is shown below. It is shown folded up for transit and measures 53cm. It can be expanded to a maximum height of 160cm which we have found sufficient for all show jumping classes. It also has a hook on which you can place a bag of water or sand to keep it steady if there are very high winds. This is an alternative to using very heavy specialized steel tripods which are expensive and you have to carry the weight even on calm days.

The timing gates fit to the tripods using a standard camera fitting, i.e. per ISO 1222:2010, the current tripod screw thread standard for attaching the camera calls for a 1/4-20 UNC thread. Our tripods conform to this standard

The 8 Channel USB Charger

The USB charger is shown below. It connects to the heads with cables having a USB "A" connection on one end and a "Mini USB" connection on the other as shown below and you need 7 if you have 3 sets of gates and 5 if you have 4 sets.

Carrying cases
The Timing Heads, Console, Charging Equipment and cables can all be accommodated in a special impact protection carrying case if required. The case is dust and weather proof to IP67 standard and designed for outdoor use. It contains foam which we cut to fit the control panel and timing heads.