

Setting up and using ARC system

Caution

In case of thunderstorms or lightning, stop using the unit at once and switch off the main power and disconnect all wiring.
Not only will the unit miscount, lightning may cause a serious accident and damage to the unit.

(1) Power

<Power supply>

- This unit will operate between DC 8-12 volts
- Supply a constant power using included AC100V adapter. (Japan, US only)
- 8.4-12volt ni-cad battery can be used. *modify the power supply lead to suit.
- Also can be used in conjunction with a DC power supply. *Non switchable type preferred.

<Checking the power>

1. When unit is switched on, the LED will light up red. The unit will be operational once connected to a computer.
2. When using a ni-cad battery pack, please use the adaptor supplied.
3. Should the ni-cad battery voltage drop below 8 volts the green LED will light up. Please change the battery should the voltage drop further the green LED will go out and the system will shut down.
4. When using a mains power supply, it may drop the voltage when other equipment is been used. Please be careful.
5. When using a mains power supply, miscounted laps may occur if the power supply is unregulated or insufficient.
Non switchable power supply is preferred.

(2) Understanding the counting mechanism.

1. Each time a car crosses the loop, a signal is sent to the system. This is recognised by a flash of the red LED.
If the red LED does not flash, the signal will not be sent to the computer.
2. When the signal is sent to the computer and the lap is not counted, check the following reasons.
Incorrect installation, interference.
A transmitter could be switched on near the loop.
A switch converter type power supply is being used.
Gain adjustment (details in pre-setting section) is incorrect.
3. The computer software will be able to recognise the signals from the main unit and will be able to score laps.

(3) Pre-setting

<Loading lap counting software>

1. Load the software supplied or a compatible software program.
2. Test the system by driving a car across the loop and check that the red LED flashes and that a lap has been registered by the computer.

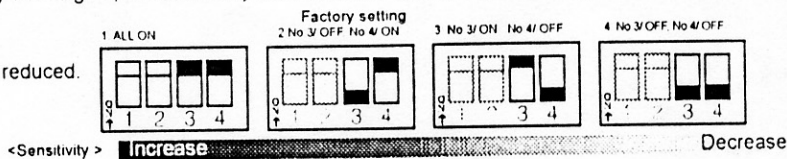
<Adjusting the gain>

1. Set the gain dial to 8
2. Increase the gain slightly if the car does not register
3. Repeat the test and adjust the gain to its lowest setting possible so that the laps are still registered.
If the gain is set too high, interference may occur
4. Repeat the procedure with multiple cars to check that they are all being counted. Adjust the gain accordingly.

<Setting up SW1> See diagram inside front panel

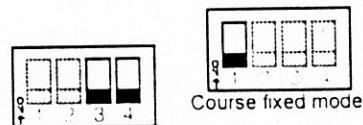
1. If incorrect counting should still occur at the lowest setting on the gain, the sensitivity can be further reduced by switching 3 and 4 on SW1.

2. The factory setting for 3 and 4 is ON. The sensitivity will be reduced.
see diagram



<Setting up SW2/ "ARC mode", course fixed mode>

1. ARC mode Use when multiple frequencies are used on the same number. Switch 1 to up position (ON) This is the factory setting.
2. Course fixed mode. Fixed crystals to each number (frequency number of TD-1)
Switch 1 to down position (OFF)
3. Switches 3 and 4 of SW2 are not used and are to be left at the factory setting



<Count testing> Included software can be used for counting.

1. Switch the main unit on and drive across the loop. (Be sure to connect TD-1)
2. When car is crossing the loop, check for red LED (Also check the number of TD-1)
3. Check the computer software to see if laps are being scored.
4. If there is interference, use the supplied noise killer core to improve the signal
5. Should laps still not be counted, check the connection of loop and other lead wires
Also refer 'About TD-1' page for further information
6. Should the car cross the loop at a very high speeds, increase the distance between the loop
7. In the display of software 'Hit' refers the strength of the signal
A Greater number means stable count performance. A number 35 or better is suitable

SW2
UP
1 DOWN → AMB del
Format