



# DURA-ACE

## EVOLUTION OF PERFECTION

# Di2

DIGITAL INTEGRATED INTELLIGENCE

## DURA-ACE Di2

### ■ Why digital shifting?

*This is currently one of the most hotly discussed topics in road cycling circles.*

*Compared to its mechanical counterpart, digital shifting with Shimano's Di2 (Digital Integrated Intelligence) technology offers lots of advantages that make it attractive to pro riders and road racing enthusiasts.*

- **Faster gear shifting:** *When the shift button is pressed, the front or rear derailleur immediately moves to the new position, thanks to the digital controls. Just like turning on a light.*
- **No manual effort required:** *Just a flick of the finger is enough, no need to move levers. (This is a huge advantage for people who have small hands or when hand-arm movement is restricted.)*
- **More precise shifting:** *No danger of over- or under-shifting. Digital technology is superior to human abilities when it comes to precision. Shifting is always executed with the same force, with the same precision, and fast as lightning.*
- **Automatic trimming:** *The computer unit calculates the chain inclination and adjusts the position of the front derailleur like magic, so the chain doesn't rub.*
- **Multi-position shifting:** *Eliminates the need to change hand position for shifting, e.g. on time trial bar extensions.*

*The advantages of DURA-ACE Di2 can make the difference between winning and losing in road racing. And for recreational riders who love their road bikes, it helps them to get even more fun out of cycling. DURA-ACE Di2 is definitely a must for anyone who loves innovation.*

*A test ride says more than a thousand words. When you and your customers have experienced this perfection yourselves, you'll know exactly what we mean!*

# Frequently asked questions, and the right answers

## Rechargeable battery

### ■ How many kilometres can I ride with a fully charged battery?

Up to 2000 kilometres, but at least 1000. The distance depends on the number of gear shifts and the prevailing temperatures.

### ■ Do I need to recharge each time after/before cycling?

No. Just check battery indicator.

### ■ How do I check the battery charging level?

When you press and hold the shift buttons, the battery charging level is indicated:

Continuous green light: 100%

Flashing green light: 50%

Continuous red light: 25%

Flashing red light: 0%

### ■ What happens when the battery runs down?

When the battery power falls below 25%, a red warning light will start to shine continuously on the cable control unit, but you will still be able to change gears over a distance of approx. 250 kilometres! When the battery has no power left, the warning light will flash. In the worse case, first the front derailleur, then the rear derailleur will stop at its current position. But you will still be able to ride.

### ■ How long does it take to recharge the battery?

Approx. 1.5 hours.

### ■ How many times can I recharge the battery?

Shimano guarantees at least 500 recharging cycles.

### ■ Can the battery holder interfere with the bottle cage?

Yes, with very small frame sizes. This can be solved by using a battery mount adaptor (ISMBA01).

### ■ Is the battery already charged when I buy it?

No, it should be charged before taking your first ride. (The battery loses power over time, similar to that of a mobile phone.)

### ■ Will the battery charger be delivered with the bike?

We recommend that it should, but this depends on the bike manufacturer.

### ■ Where can I buy a new battery and what will it cost?

The battery is a unique design and will be available at bike dealers.

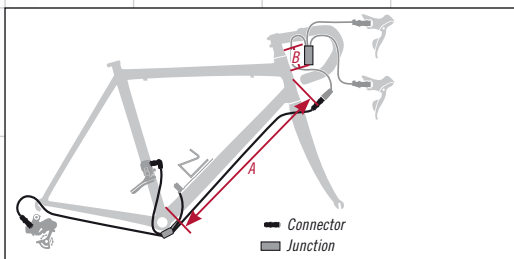
The recommended retail price is about 70 euros.



## Cables

### How can I calculate the correct length of the external electric wires?

The optimum length is calculated as follows:  
Length = A + B



There are three different lengths of wires available, to serve the following length ranges:

Wire length / Length range  
S = 705 mm / 635 – 705 mm  
M = 790 mm / 670 – 790 mm  
L = 875 mm / 710 – 875 mm

### When the electric wire is broken, do I need to replace the complete wire?

The wire is one unit, so if it breaks, the whole wire has to be replaced.

### How can I fix the external wire on the frame?

There is a special wire cover which is available in black, white and grey.

## Switches

### Is there an electric switch available for multi position on the handlebar?

Yes. This will be available from July 2009.

### How many switches can I combine?

Only one additional switch can be used in combination with ST-7970 or ST-7971.

### When will the FLIGHT DECK computer be available?

The plan is to introduce the FLIGHT DECK in Summer 2009.

### Can you upgrade later on with FLIGHT DECK?

Yes, this will be possible.



## Miscellaneous

### What will the group cost?

The digital DURA-ACE Di2 will cost approx. 50% more than the mechanical DURA-ACE version.

### What is the weight difference?

The weight difference versus DURA-ACE is + 56 grams.

### Is it possible to upgrade from the predecessor model DURA-ACE 7800 (up to 2008) to Di2?

Unfortunately, this will not be possible.

### Is there a reach adjuster?

Yes, the reach can be adjusted as desired.

### Are there any restrictions regarding the cassette sprockets?

No, except that the 11-28 cassette cannot be used because the capacity is not sufficient.

### How do you adjust the system?

Adjustment can be done at the control unit for the wire or at the FLIGHT DECK, if installed.

### Does Shimano offer special DURA-ACE Di2 training for dealers?

Yes, the national Shimano distributors offer such technical training courses. Please contact your distributor to find out the dates.

### What happens if the bicycle falls on the rear derailleur?

There is a special safety mechanism that releases the rear derailleur to prevent it from being damaged. Pressing the button on the junction for 5 seconds or more will restore the connection between the motor and the rear derailleur.

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*The new DURA-ACE Di2. The electronic road components featuring Di2 technology. An addition to the new mechanical DURA-ACE series, it delivers state-of-the-art shifting technology. From the leader in innovation and design. It's time for a revolutionary road racing feeling.*

Experience the evolution of perfection. [www.dura-ace.com](http://www.dura-ace.com)

**SHIMANO**