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This article will guide you through the step-by-step process to charge the Di2 for 10, 11, and 12-speed groupsets. Based on my experience as a long-time Shimano Di2 user, I'll cover the key aspects, such as the location of the charging port, using the correct battery charger, and the frequently asked questions about charging. Shimano 12-speed rear derailleur charger The 12-speed Shimano Di2 uses an internal battery (BT-DN300) and requires the EW-EC300 charging cable. Connect the USB-A end to a regular smartphone charger with at least 1.0A capacity. Pop open the charging port on the rear derailleur by placing your finger on the notch. Connect the magnetic end rear derailleur. Make sure the connection is snug and secure. The charge indicator LED on the rear derailleur will light up blue while charging and goes off once charging completes. Things to note The derailleurs will not work during charging. This cable can also charge the latest Shimano power meter (FC-R9200-P). If the charge indicator LED flashes red, the charging current is insufficient. Find a charger with at least 1.0A capacity. If the rear derailleur becomes too hot, stop charging for a while. If it persists, contact your local bike shop. Shimano BCR2 Charger The 11-speed Shimano Di2 uses an internal battery (SM-BTR2 or BT-DN110) and requires the SM-BCR2 charger. Connect the USB-A end of the cable to a regular smartphone charger with at least 1.0A capacity. Connect the micro-USB end of the USB cable to the charger (SM-BCR2). Pop open the charging port on Junction A. Depending on your setup, it can be below the stem, handlebar end, seatpost, or downtube. Connect the other end to Junction A. Make sure the connection is snug and secure. The charge indicator LED will light up in orange while charging and goes off once charging completes. Things to note The derailleurs will work during charging. If the Charge or Error indicator lights up or flashes, there is a problem with the charging. A current of less than 1.0A usually causes this. The 10-speed Shimano Di2 uses an external battery (SM-BTR1). Use the SM-BCR1 charger. Remove the battery from the bike. Insert the battery into the charger SM-BCR1. The charging indicator will light in orange and go off once charging completes. A full charge will take around 1.5 hours, depending on your battery level. Remove the battery from the charger and reinstall it back onto the bike. This applies to 10-speed (R7970 / R6770) 11-speed (R9150 / R9000 / R8000 / R6870) and 10-speed Shimano Di2 rear derailleurs. How long does it take to charge the battery to full? Depending on your battery level, a full charge will take around 1.5 hours (AC adapter) to 3 hours (computer USB port). Is the shifting working while the battery is charging? The shifting will not work for the 12-speed derailleur while charging. Shifting will work for 11-speed derailleurs while charging. Will it continue to charge when the battery is full? The charging will automatically cut off when the battery is full. The Charge indicator light will go off. If you attempt to charge a full battery, the Charge indicator will not light up, or light up and turn off immediately. Check your Di2 battery levels regularly to ensure you don't run out of battery midway through the ride. Di2 has a lot of functionality that is triggered using the bike's function button, and the LEDs next to that button report the bike's status using a series of lights and flashes. The location of these buttons and LEDs is different for 10-speed, 11-speed, and 12-speed Di2, as well as the light patterns. If you have different generation Di2 bikes this gets really complicated, really fast. Print the cheat sheets you need, and put them in your garage or bike shed. That way you'll never have to look up the manual ever again! 12-speed Di2 Cheat SheetPDF: 12-speed Cheat Sheet (A4)PNG: 12-speed Cheat Sheet11-speed Di2 Cheat Sheet (with Synchronized Shift)Download these files if you have a Synchronized Shift capable bike. This is any 11-speed Di2 bike with either the BT-DN110 battery or the BM-DN100 external battery mount. 10/11-speed Di2 Cheat Sheet (without Synchronized Shift)10-speed Di2 bikes and bikes with the SM-BTR2 internal battery or SM-BMRL2 battery mount have slightly different timings for adjustment mode and crash reset, so I've there's a separate cheat sheet for these older bikes.PDF: 10/11-speed Cheat Sheet (A4)PNG: 10/11-speed Cheat SheetFinally, here is a zip file containing all cheat sheets.Put your own logo on the Cheat SheetsWant to put your own logo on the Cheat Sheets? You can! Go right ahead. The top right of the cheat sheet is all yours.If you have to move some content down, or move things around a bit, feel free to do so. You are free to modify the cheat sheets as you see fit. The only things you cannot change are the QR codes and links to BetterShifting.com. Other than that, go ahead.Want the source files? No problem, just send me a message.Help, suggestionsDo you have suggestions on how to improve the cheat sheets? Spotted a mistake? I'd love to hear from you. Please leave a comment below or send me a message.Front of Shimano Di2 Battery Charger In this article, I'm going to show you how to charge your Shimano Di2 battery. The Shimano Di2 charging instructions below will guide you over the charger, cables and power source recommended to charge the internal battery. The Shimano electronic Gear Shifting system is called the Di2, short for Digital Integrated Intelligence. This article focuses on Shimano 11-speed Di2 Ultegra systems. What you're going to need to charge it is the Shimano charger SM-BCR2, pictured below. The charger has a Shimano connector on one end to plug into your bike. The other side of the charger has a micro-USB connector to plug it into a power source. If you do not have this charger, you can purchase it here: Shimano SM-BCR2 Charger. Shimano Di2 Battery Charger SM-BCR2 In order to charge the battery, you must locate the Di2 Junction Box A on your bike. Your bike may have an EW-RS910 Junction Box A as pictured below. This type box has the charging port under a small cover right below the button. EW-RS910 Junction Box A Battery Charging Port Alternatively, you may have an SM-EW90 Junction Box A. The SM-EW90 Junction Box may be mounted under the stem or handlebar. This type box has the charging port on the side. Shimano SM-EW90 Junction Box A Simply plug the Bike Connector end (shown in picture below) into the charging port. Shimano Di2 Charger Bike connector Then plug the other end of the charger into USB power source. Using a Micro-USB to USB Cable. Shimano Di2 Charger Micro USB Power Input Connection Shimano Di2 Charger Micro USB to USB Cable You will want to plug the USB end of the cable into either a computer USB port (a blue powered USB if available), a standard charging block, or a higher power block. The higher power block, which puts out 10 watts or more, will charge your Di2 battery a lot quicker (as well as other USB devices). I use the Anker IQ power block pictured below for all my bike charging needs as it has a higher Wattage output which charges my devices faster. I use it for my Wahoo Roam Computer, Garmin Varia Radar Detector, Cycliq Cameras and Shimano Di2. You can check it out at this link: Anker IQ Charging Block Shimano Di2 Recommended Charging Block Anker IQ A standard charging block will work fine, but it'll take a little bit longer. If you plug it into a computer, its going to take even longer due to the power output. When you plug it in, the charger is going to have an orange light under the charge icon. But when the charge is over, that lights going to go out and your Shimano Di2 battery will be fully charged at that point. Shimano Di2 Charger Orange light is lit when charging Then you are ready to ride! It is really simple so long as you have the correct charger and cable. You can check out my article and video on How to Check Shimano Di2 Battery Level but here are the quick instructions. Your Junction Box A will have an LED on the left side with a little battery symbol below it. All you need to do to check the Di2 internal battery status is press any of your shift levers for about half a second, and that light is going to come on. If it comes on solid green, that means the battery charge is up around 100%. If its flashing green, its around 50%. If its red, its 25% or less. And if its flashing red, its just about dead. So, you want to get it charged if it comes up red. Shimano Di2 Battery Status Light After the battery light comes on for two seconds, both lights are going to flash or do something else that has to do with your shift mode, which is the subject of another article. But all were worried about is this light for about two seconds after you hit your shift switch. You can check out my YouTube Video if you want more info on the other lights: Shimano Di2 Shift Modes The actual Shimano Di2 battery is located in different areas depending on the bike that you have. I have a Trek Domane, and on this particular Trek, the Di2 battery is in downtube and can be accessed by opening the hidden compartment under the water bottle cage. See picture below. Shimano Di2 BT-DN110 Battery That's actually the battery that were charging. Where its located depends on the bike that you have. Your battery might be located in the seat tube, where you'll have to take the seat off or the seat post out to get to the battery. Those are the two different types that I know about. There might be others out there, but just so you know, the battery is usually internally mounted on some bikes and it could be externally mounted on others. The LED lights on the Shimano Di2 SM-BCR2 charger will tell you if the Di2 battery is charging or if it is done charging. The left LED light (CHARGE Indicator) will glow orange when the battery is being charged. This light will go out when charging is complete. The right hand LED light (ERROR LED) will illuminate if there is a problem with the battery or the charger. If the ERROR LED indicator starts blinking, it likely means the charger is too hot or too cold for it to function. Check that the room temperature is between 0-45 C, or 32-113 F. If the CHARGE indicator is blinking, the USB power source you are using does not have enough power. Be sure the current capacity of your source is equal to or greater than 1.0A. There are 2 LED lights on the Di2 Junction Box on your bike. They have several meanings: Pressing any of the shift levers for 5 seconds will cause the LEFT LED to indicate the Battery Charge Level for 2 seconds, then both LED lights will flash to indicate which Shift Mode you are in. Pressing the button on the Junction Box for 5 seconds will put the Di2 into Bluetooth Pairing mode (only if you have the wireless module installed) and the 2 LED lights will flash alternately red and green. Pressing the button on the Junction Box for 2 seconds will put the bike in Adjustment Mode and the Red LED will illuminate. Do not do this unless you know what you are doing. I hope you found this article helpful! Please comment or leave questions below and I will be happy to reply! Thanks for visiting Daves Cycling! How do I know if my Shimano di2 is charged?How long does a di2 battery take to charge?The battery may take approximately 1.5 hours to fully charge, and the orange charging indicator light will turn off. Shimano offers a diagnostic electronic system checker for the Di2 system. How do you charge a Shimano bike battery?First up, make sure the power is off before inserting the key into the battery, turning to unlock and carefully removing it from the down tube. Lift the rubber cap to reveal the charging socket and insert the charging plug. Connect the charging cable to your power outlet and let charging commence. How do you charge a Shimano gear shifter?Can you overcharge Di2?All I wanted to no is if I could leave it on charge over night . Yes, you can. The light on the charger is on when its charging and off when it isnt. Plug it into whatever you can. Can you use Di2 while charging?You can still use your Di2 shifters while the battery is charging (the derailleurs move and the charge light remains lighted). How do I charge my Di2 internal battery?If your bike has an internal battery you'll have to plug the charger into the junction box either below the stem/handlebar or integrated into the frame. It has a little cover that you can open using a screwdriver or knife.How do you charge e-bike battery?To charge your e-bike battery, detach the battery pack from your e-bike, and make sure its switched off. Then connect the e-bikes original charger to the mains outlet; plug the charger to the battery, and switch-on the plug.Where is the Di2 battery?The Shimano BT-DN110 internal Di2 battery can be installed in a number of places: the fork, MTB handlebar, a really long stem, anywhere that fits really. You will most often find it installed in the seatpost and for good reason: this way it is close to junction B and the bikes derailleurs.What does a green and red light mean on Di2?If you see a green light for about two seconds, you have a fully charged battery. If a green light flashes five times, the battery is at about 50 per cent. A solid red light means about 25 per cent of the battery's charge left. A flashing red means that its almost dead.How do I charge my BT dn 110?In order to charge this battery just connect your SM-BCR2 to either your bar-end/frame junction or below-the-stem mounted junction box and plug it into a power socket or laptop. Note that the USB port you plug the charger into should supply at least 1A.Why is Di2 charger blinking red?This indicates a problem with charging the internal battery. Should this occur, you should contact support to see if your unit is under warranty and/or needs repair. The battery is not charging while the light is blinking red.How does electronic shifting work?With electronic shifting, there are no cables, and the derailleurs move the chain with battery power. For this to work, the motor in each derailleur must receive a signal from the shift levers, which then moves the chain either up or down the cassette or chain rings.How do you charge Di2 Speedmax?The di2 rechargeable battery of the Canyon Speedmax CF is located at the lower end of the seat post. The seat post rechargeable battery is charged by means of a USB connection at the handle-bar distributor.How do I connect my phone to my Di2? Verify that [Connect] is set to ON in the (MENU), and then tap [Device]. Tap [Pair to Device] to start pairing. Activate the sensor or the Di2 system. Activating the sensor or the Di2 system. Set the tire circumference for a sensor capable of speed measurement. Set the Di2 system switch control and gear information. How do I know if my electric bike is charging?The majority of electric bikes will have light indicators to tell you whether your bike needs charging or if your bike is now fully charged. When your bike runs out of power or the battery is getting low, the light will turn red, and when the battery is done charging, the light will turn green.How do I know when my e bike battery is charged?Most e-bikes chargers will have a red LED to show that the battery is still charging that will turn green once the bike is fully charged.Why is my e-bike battery not charging?Check the Battery Prongs If the battery's prongs aren't lining up correctly, it can inhibit electricity flow from the charger to the battery. This particular problem can be easily remedied using a wrench or other tool to realign the battery's prongs.What wires do I need for di2?You'll need at least three (Shifter -> Junction A -> Battery / Rear derailleur) EW-SD50 electric wires to build a Di2 system. Most setups will use a more sensible set of five or six wires. Apart from the EW-SD50 electric wires there are also the EW-G130 Y-connector and EW-JC200 inline-port to help you connect all the components. Can you install Di2 without removing bottom bracket?Di2 installation can be done with bottom bracket installed, but is much easier done WITHOUT a bottom bracket installed. Wiring for a FRONT DERAILLEUR will come up from the junction box in the bottom bracket shell to the small port below the front derailleur and seat tube/waterbottle mounting holes (Fig.What does di2 mean?Di2 (DIGITAL INTEGRATED INTELLIGENCE).How do you connect e tube to Di2?To connect to the E-TUBE app you simply turn on the power on your bike, open the app and tap the flashing connection icon in the top right corner. Next, tap connect and then you're set up and ready to go!What type of battery is in Di2?Shimano Di2 BT-DN110-A2 Internal Battery. Shimano Internal Battery Master Unit for your Shimano Di2 system. This battery weighs just 50g, and is built-in to your seatpost.Does red light mean charging?Red light shows its charging. Blue light shows completion of charge.What does red light mean when charging?Red light just shows that power is on. When the light is blinking it is charging. It will be steady green when its fully charged. The red light means to charge it.When the battery charger red light is on and the green light is off this means?When the red light turns off and only the green light is on that indicates that the battery pack is charged and the vehicle is ready to use. Di2 has a lot of functionality that is triggered using the bike's function button, and the LEDs next to that button report the bike's status using a series of lights and flashes. The location of these buttons and LEDs is different for 10-speed, 11-speed, and 12-speed Di2, as well as the light patterns. If you have different generation Di2 bikes this gets really complicated, really fast. Print the cheat sheets you need, and put them in your garage or bike shed. That way you'll never have to look up the manual ever again! 12-speed Di2 Cheat SheetPDF: 12-speed Cheat Sheet (A4)PNG: 12-speed Cheat Sheet11-speed Di2 Cheat Sheet (with Synchronized Shift)Download these files if you have a Synchronized Shift capable bike. This is any 11-speed Di2 bike with either the BT-DN110 battery or the BM-DN100 external battery mount. 10/11-speed Di2 Cheat Sheet (without Synchronized Shift)10-speed Di2 bikes and bikes with the SM-BTR2 internal battery or SM-BMRL2 battery mount have slightly different timings for adjustment mode and crash reset, so I've there's a separate cheat sheet for these older bikes.PDF: 10/11-speed Cheat Sheet (A4)PNG: 10/11-speed Cheat SheetFinally, here is a zip file containing all cheat sheets.Put your own logo on the Cheat Sheets? You can! Go right ahead. The top right of the cheat sheet is all yours.If you have to move some content down, or move things around a bit, feel free to do so. You are free to modify the cheat sheets as you see fit. The only things you cannot change are the QR codes and links to BetterShifting.com. Other than that, go ahead.Want the source files? No problem, just send me a message.Help, suggestionsDo you have suggestions on how to improve the cheat sheets? Spotted a mistake? I'd love to hear from you. Please leave a comment below or send me a message.Front of Shimano Di2 Battery Charger In this article, I'm going to show you how to charge your Shimano Di2 battery. The Shimano Di2 charging instructions below will guide you over the charger, cables and power source recommended to charge the internal battery. The Shimano electronic Gear Shifting system is called the Di2, short for Digital Integrated Intelligence. This article focuses on Shimano 11-speed Di2 Ultegra systems. What you're going to need to charge it is the Shimano charger SM-BCR2, pictured below. The charger has a Shimano connector on one end to plug into your bike. The other side of the charger has a micro-USB connector to plug it into a power source. If you do not have this charger, you can purchase it here: Shimano SM-BCR2 Charger. Shimano Di2 Battery Charger SM-BCR2 In order to charge the battery, you must locate the Di2 Junction Box A on your bike. Your bike may have an EW-RS910 Junction Box A as pictured below. This type box has the charging port under a small cover right below the button. EW-RS910 Junction Box A Battery Charging Port Alternatively, you may have an SM-EW90 Junction Box A. The SM-EW90 Junction Box may be mounted under the stem or handlebar. This type box has the charging port on the side. Shimano SM-EW90 Junction Box A Simply plug the Bike Connector end (shown in picture below) into the charging port. Shimano Di2 Charger Bike connector Then plug the other end of the charger into USB power source. Using a Micro-USB to USB Cable. Shimano Di2 Charger Micro USB Power Input Connection Shimano Di2 Charger Micro USB to USB Cable You will want to plug the USB end of the cable into either a computer USB port (a blue powered USB if available), a standard charging block, or a higher power block. The higher power block, which puts out 10 watts or more, will charge your Di2 battery a lot quicker (as well as other USB devices). I use the Anker IQ power block pictured below for all my bike charging needs as it has a higher Wattage output which charges my devices faster. I use it for my Wahoo Roam Computer, Garmin Varia Radar Detector, Cycliq Cameras and Shimano Di2. You can check it out at this link: Anker IQ Charging Block Shimano Di2 Recommended Charging Block Anker IQ A standard charging block will work fine, but it'll take a little bit longer. If you plug it into a computer, its going to take even longer due to the power output. When you plug it in, the charger is going to have an orange light under the charge icon. But when the charge is over, that lights going to go out and your Shimano Di2 battery will be fully charged at that point. Shimano Di2 Charger Orange light is lit when charging Then you are ready to ride! It is really simple so long as you have the correct charger and cable. You can check out my article and video on How to Check Shimano Di2 Battery Level but here are the quick instructions. Your Junction Box A will have an LED on the left side with a little battery symbol below it. All you need to do to check the Di2 internal battery status is press any of your shift levers for about half a second, and that light is going to come on. If it comes on solid green, that means the battery charge is up around 100%. If its flashing green, its around 50%. If its red, its 25% or less. And if its flashing red, its just about dead. So, you want to get it charged if it comes up red. Shimano Di2 Battery Status Light After the battery light comes on for two seconds, both lights are going to flash or do something else that has to do with your shift mode, which is the subject of another article. But all were worried about is this light for about two seconds after you hit your shift switch. You can check out my YouTube Video if you want more info on the other lights: Shimano Di2 Shift Modes The actual Shimano Di2 battery is located in different areas depending on the bike that you have. I have a Trek Domane, and on this particular Trek, the Di2 battery is in downtube and can be accessed by opening the hidden compartment under the water bottle cage. See picture below. Shimano Di2 BT-DN110 Battery That's actually the battery that were charging. Where its located depends on the bike that you have. Your battery might be located in the seat tube, where you'll have to take the seat off or the seat post out to get to the battery. 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That way you'll never have to look up the manual ever again! 12-speed Di2 Cheat SheetPDF: 12-speed Cheat Sheet (A4)PNG: 12-speed Cheat Sheet11-speed Di2 Cheat Sheet (with Synchronized Shift)Download these files if you have a Synchronized Shift capable bike. This is any 11-speed Di2 bike with either the BT-DN110 battery or the BM-DN100 external battery mount. 10/11-speed Di2 Cheat Sheet (without Synchronized Shift)10-speed Di2 bikes and bikes with the SM-BTR2 internal battery or SM-BMRL2 battery mount have slightly different timings for adjustment mode and crash reset, so I've there's a separate cheat sheet for these older bikes.PDF: 10/11-speed Cheat Sheet (A4)PNG: 10/11-speed Cheat SheetFinally, here is a zip file containing all cheat sheets.Put your own logo on the Cheat Sheets? You can! Go right ahead. The top right of the cheat sheet is all yours.If you have to move some content down, or move things around a bit, feel free to do so. You are free to modify the cheat sheets as you see fit. The only things you cannot change are the QR codes and links to BetterShifting.com. Other than that, go ahead.Want the source files? No problem, just send me a message.Help, suggestionsDo you have suggestions on how to improve the cheat sheets? Spotted a mistake? I'd love to hear from you. Please leave a comment below or send me a message.Front of Shimano Di2 Battery Charger In this article, I'm going to show you how to charge your Shimano Di2 battery. The Shimano Di2 charging instructions below will guide you over the charger, cables and power source recommended to charge the internal battery. The Shimano electronic Gear Shifting system is called the Di2, short for Digital Integrated Intelligence. This article focuses on Shimano 11-speed Di2 Ultegra systems. What you're going to need to charge it is the Shimano charger SM-BCR2, pictured below. The charger has a Shimano connector on one end to plug into your bike. The other side of the charger has a micro-USB connector to plug it into a power source. If you do not have this charger, you can purchase it here: Shimano SM-BCR2 Charger. Shimano Di2 Battery Charger SM-BCR2 In order to charge the battery, you must locate the Di2 Junction Box A on your bike. Your bike may have an EW-RS910 Junction Box A as pictured below. This type box has the charging port under a small cover right below the button. EW-RS910 Junction Box A Battery Charging Port Alternatively, you may have an SM-EW90 Junction Box A. The SM-EW90 Junction Box may be mounted under the stem or handlebar. This type box has the charging port on the side. Shimano SM-EW90 Junction Box A Simply plug the Bike Connector end (shown in picture below) into the charging port. Shimano Di2 Charger Bike connector Then plug the other end of the charger into USB power source. Using a Micro-USB to USB Cable. Shimano Di2 Charger Micro USB Power Input Connection Shimano Di2 Charger Micro USB to USB Cable You will want to plug the USB end of the cable into either a computer USB port (a blue powered USB if available), a standard charging block, or a higher power block. The higher power block, which puts out 10 watts or more, will charge your Di2 battery a lot quicker (as well as other USB devices). I use the Anker IQ power block pictured below for all my bike charging needs as it has a higher Wattage output which charges my devices faster. I use it for my Wahoo Roam Computer, Garmin Varia Radar Detector, Cycliq Cameras and Shimano Di2. You can check it out at this link: Anker IQ Charging Block Shimano Di2 Recommended Charging Block Anker IQ A standard charging block will work fine, but it'll take a little bit longer. If you plug it into a computer, its going to take even longer due to the power output. When you plug it in, the charger is going to have an orange light under the charge icon. But when the charge is over, that lights going to go out and your Shimano Di2 battery will be fully charged at that point. Shimano Di2 Charger Orange light is lit when charging Then you are ready to ride! It is really simple so long as you have the correct charger and cable. You can check out my article and video on How to Check Shimano Di2 Battery Level but here are the quick instructions. Your Junction Box A will have an LED on the left side with a little battery symbol below it. All you need to do to check the Di2 internal battery status is press any of your shift levers for about half a second, and that light is going to come on. If it comes on solid green, that means the battery charge is up around 100%. If its flashing green, its around 50%. If its red, its 25% or less. And if its flashing red, its just about dead. So, you want to get it charged if it comes up red. Shimano Di2 Battery Status Light After the battery light comes on for two seconds, both lights are going to flash or do something else that has to do with your shift mode, which is the subject of another article. But all were worried about is this light for about two seconds after you hit your shift switch. You can check out my YouTube Video if you want more info on the other lights: Shimano Di2 Shift Modes The actual Shimano Di2 battery is located in different areas depending on the bike that you have. I have a Trek Domane, and on this particular Trek, the Di2 battery is in downtube and can be accessed by opening the hidden compartment under the water bottle cage. See picture below. Shimano Di2 BT-DN110 Battery That's actually the battery that were charging. Where its located depends on the bike that you have. Your battery might be located in the seat tube, where you'll have to take the seat off or the seat post out to get to the battery. Those are the two different types that I know about. There might be others out there, but just so you know, the battery is usually internally mounted on some bikes and it could be externally mounted on others. The LED lights on the Shimano Di2 SM-BCR2 charger will tell you if the Di2 battery is charging or if it is done charging. The left LED light (CHARGE Indicator) will glow orange when the battery is being charged. This light will go out when charging is complete. The right hand LED light (ERROR LED) will illuminate if there is a problem with the battery or the charger. If the ERROR LED indicator starts blinking, it likely means the charger is too hot or too cold for it to function. Check that the room temperature is between 0-45 C, or 32-113 F. If the CHARGE indicator is blinking, the USB power source you are using does not have enough power. Be sure the current capacity of your source is equal to or greater than 1.0A. There are 2 LED lights on the Di2 Junction Box on your bike. They have several meanings: Pressing any of the shift levers for 5 seconds will cause the LEFT LED to indicate the Battery Charge Level for 2 seconds, then both LED lights will flash to indicate which Shift Mode you are in. Pressing the button on the Junction Box for 5 seconds will put the Di2 into Bluetooth Pairing mode (only if you have the wireless module installed) and the 2 LED lights will flash alternately red and green. Pressing the button on the Junction Box for 2 seconds will put the bike in Adjustment Mode and the Red LED will illuminate. Do not do this unless you know what you are doing. I hope you found this article helpful! Please comment or leave questions below and I will be happy to reply! Thanks for visiting Daves Cycling! How do I know if my Shimano di2 is charged?How long does a di2 battery take to charge?The battery may take approximately 1.5 hours to fully charge, and the orange charging indicator light will turn off. Shimano offers a diagnostic electronic system checker for the Di2 system. How do you charge a Shimano bike battery?First up, make sure the power is off before inserting the key into the battery, turning to unlock and carefully removing it from the down tube. Lift the rubber cap to reveal the charging socket and insert the charging plug. Connect the charging cable to your power outlet and let charging commence. How do you charge a Shimano gear shifter?Can you overcharge Di2?All I wanted to no is if I could leave it on charge over night . Yes, you can. The light on the charger is on when its charging and off when it isnt. Plug it into whatever you can. Can you use Di2 while charging?You can still use your Di2 shifters while the battery is charging (the derailleurs move and the charge light remains lighted). How do I charge my Di2 internal battery?If your bike has an internal battery you'll have to plug the charger into the junction box either below the stem/handlebar or integrated into the frame. It has a little cover that you can open using a screwdriver or knife.How do you charge e-bike battery?To charge your e-bike battery, detach the battery pack from your e-bike, and make sure its switched off. Then connect the e-bikes original charger to the mains outlet; plug the charger to the battery, and switch-on the plug.Where is the Di2 battery?The Shimano BT-DN110 internal Di2 battery can be installed in a number of places: the fork, MTB handlebar, a really long stem, anywhere that fits really. You will most often find it installed in the seatpost and for good reason: this way it is close to junction B and the bikes derailleurs.What does a green and red light mean on Di2?If you see a green light for about two seconds, you have a fully charged battery. If a green light flashes five times, the battery is at about 50 per cent. A solid red light means about 25 per cent of the battery's charge left. A flashing red means that its almost dead.How do I charge my BT dn 110?In order to charge this battery just connect your SM-BCR2 to either your bar-end/frame junction or below-the-stem mounted junction box and plug it into a power socket or laptop. Note that the USB port you plug the charger into should supply at least 1A.Why is Di2 charger blinking red?This indicates a problem with charging the internal battery. Should this occur, you should contact support to see if your unit is under warranty and/or needs repair. The battery is not charging while the light is blinking red.How does electronic shifting work?With electronic shifting, there are no cables, and the derailleurs move the chain with battery power. For this to work, the motor in each derailleur must receive a signal from the shift levers, which then moves the chain either up or down the cassette or chain rings.How do you charge Di2 Speedmax?The di2 rechargeable battery of the Canyon Speedmax CF is located at the lower end of the seat post. The seat post rechargeable battery is charged by means of a USB connection at the handle-bar distributor.How do I connect my phone to my Di2? Verify that [Connect] is set to ON in the (MENU), and then tap [Device]. Tap [Pair to Device] to start pairing. Activate the sensor or the Di2 system. Activating the sensor or the Di2 system. Set the tire circumference for a sensor capable of speed measurement. Set the Di2 system switch control and gear information. How do I know if my electric bike is charging?The majority of electric bikes will have light indicators to tell you whether your bike needs charging or if your bike is now fully charged. When your bike runs out of power or the battery is getting low, the light will turn red, and when the battery is done charging, the light will turn green.How do I know when my e bike battery is charged?Most e-bikes chargers will have a red LED to show that the battery is still charging that will turn green once the bike is fully charged.Why is my e-bike battery not charging?Check the Battery Prongs If the battery's prongs aren't lining up correctly, it can inhibit electricity flow from the charger to the battery. This particular problem can be easily remedied using a wrench or other tool to realign the battery's prongs.What wires do I need for di2?You'll need at least three (Shifter -> Junction A -> Battery / Rear derailleur) EW-SD50 electric wires to build a Di2 system. Most setups will use a more sensible set of five or six wires. Apart from the EW-SD50 electric wires there are also the EW-G130 Y-connector and EW-JC200 inline-port to help you connect all the components. Can you install Di2 without removing bottom bracket?Di2 installation can be done with bottom bracket installed, but is much easier done WITHOUT a bottom bracket installed. Wiring for a FRONT DERAILLEUR will come up from the junction box in the bottom bracket shell to the small port below the front derailleur and seat tube/waterbottle mounting holes (Fig.What does di2 mean?Di2 (DIGITAL INTEGRATED INTELLIGENCE).How do you connect e tube to Di2?To connect to the E-TUBE app you simply turn on the power on your bike, open the app and tap the flashing connection icon in the top right corner. Next, tap connect and then you're set up and ready to go!What type of battery is in Di2?Shimano Di2 BT-DN110-A2 Internal Battery. Shimano Internal Battery Master Unit for your Shimano Di2 system. This battery weighs just 50g, and is built-in to your seatpost.Does red light mean charging?Red light shows its charging. Blue light shows completion of charge.What does red light mean when charging?Red light just shows that power is on. When the light is blinking it is charging. It will be steady green when its fully charged. The red light means to charge it.When the battery charger red light is on and the green light is off this means?When the red light turns off and only the green light is on that indicates that the battery pack is charged and the vehicle is ready to use. Di2 has a lot of functionality that is triggered using the bike's function button, and the LEDs next to that button report the bike's status using a series of lights and flashes. The location of these buttons and LEDs is different for 10-speed, 11-speed, and 12-speed Di2, as well as the light patterns. If you have different generation Di2 bikes this gets really complicated, really fast. Print the cheat sheets you need, and put them in your garage or bike shed. That way you'll never have to look up the manual ever again! 12-speed Di2 Cheat SheetPDF: 12-speed Cheat Sheet (A4)PNG: 12-speed Cheat Sheet11-speed Di2 Cheat Sheet (with Synchronized Shift)Download these files if you have a Synchronized Shift capable bike. This is any 11-speed Di2 bike with either the BT-DN110 battery or the BM-DN100 external battery mount. 10/11-speed Di2 Cheat Sheet (without Synchronized Shift)10-speed Di2 bikes and bikes with the SM-BTR2 internal battery or SM-BMRL2 battery mount have slightly different timings for adjustment mode and crash reset, so I've there's a separate cheat sheet for these older bikes.PDF: 10/11-speed Cheat Sheet (A4)PNG: 10/11-speed Cheat SheetFinally, here is a zip file containing all cheat sheets.Put your own logo on the Cheat Sheets? You can! Go right ahead. The top right of the cheat sheet is all yours.If you have to move some content down, or move things around a bit, feel free to do so. You are free to modify the cheat sheets as you see fit. The only things you cannot change are the QR codes and links to BetterShifting.com. Other than that, go ahead.Want the source files? No problem, just send me a message.Help, suggestionsDo you have suggestions on how to improve the cheat sheets? Spotted a mistake? I'd love to hear from you. Please leave a comment below or send me a message.Front of Shimano Di2 Battery Charger In this article, I'm going to show you how to charge your Shimano Di2 battery. The Shimano Di2 charging instructions below will guide you over the charger, cables and power source recommended to charge the internal battery. The Shimano electronic Gear Shifting system is called the Di2, short for Digital Integrated Intelligence. This article focuses on Shimano 11-speed Di2 Ultegra systems. What you're going to need to charge it is the Shimano charger SM-BCR2, pictured below. The charger has a Shimano connector on one end to plug into your bike. The other side of the charger has a micro-USB connector to plug it into a power source. If you do not have this charger, you can purchase it here: Shimano SM-BCR2 Charger. Shimano Di2 Battery Charger SM-BCR2 In order to charge the battery, you must locate the Di2 Junction Box A on your bike. Your bike may have an EW-RS910 Junction Box A as pictured below. This type box has the charging port under a small cover right below the button. EW-RS910 Junction Box A Battery Charging Port Alternatively, you may have an SM-EW90 Junction Box A. The SM-EW90 Junction Box may be mounted under the stem or handlebar. This type box has the charging port on the side. Shimano SM-EW90 Junction Box A Simply plug the Bike Connector end (shown in picture below) into the charging port. Shimano Di2 Charger Bike connector Then plug the other end of the charger into USB power source. Using a Micro-USB to USB Cable. Shimano Di2 Charger Micro USB Power Input Connection Shimano Di2 Charger Micro USB to USB Cable You will want to plug the USB end of the cable into either a computer USB port (a blue powered USB if available), a standard charging block, or a higher power block. The higher power block, which puts out 10 watts or more, will charge your Di2 battery a lot quicker (as well as other USB devices). I use the Anker IQ power block pictured below for all my bike charging needs as it has a higher Wattage output which charges my devices faster. I use it for my Wahoo Roam Computer, Garmin Varia Radar Detector, Cycliq Cameras and Shimano Di2. You can check it out at this link: Anker IQ Charging Block Shimano Di2 Recommended Charging Block Anker IQ A standard charging block will work fine, but it'll take a little bit longer. If you plug it into a computer, its going to take even longer due to the power output. When you plug it in, the charger is going to have an orange light under the charge icon. 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