Iphone lightning cable wiring diagram

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If you inadvertently cross wires and use the cable, it could short something in your phone which then prevents data transfer with ANY cable! I wanted to shorten one of my iPhone 5 lightning cables for my car charging purposes so I thought I'd give it a whirl. I'm new a soldering and haven't done anything like this previously with this type of cable so I wasn't sure it would work. I tried this twice, the first time it didn't work, the second time it did. I wrote this instructable on the fist attempt so read though carefully as I have indicated where I made the error. The reason I did this was because I also made a custom usb chaging port on the left side of my car steering wheel which is where my phone mount is and I did not want it to be overly long. In the end it became about 10cm long and works great. Time for project: As Im new to this, it took me about 2 hours including time to document the experience. Things you'll need: 1. Sizzors 5. Lighter or heat gun. A Pin this is not needed for second attempt. Use your wire cutter to cut the cable. Cut to length with the intention of stripping 2 - 3 inches off each side and plan for the stripped portions to overlap in the end to get the cable to the length you want. Strip off the exterior white sheath. Using the a pin, work your way from the top down, unweaving the cable. Be careful not to try and unweave more than the top braided portion as the cables will get more difficult to undo as you go. Once unweaved completely, pull to one side and twist. It will loosen and become wide and expose all the cables underneath. This interweaved part is just a protective layer. After pulling it back, I used sizzors to cut it off completely. Unwrap the insulating 'tinfoil'. Be careful not to rip, as I am not sure if this is really an insulator or not IT is simply another protective layer. I used it again to re-wrap the cable at the end. Inside there are 3 insulated cables red, green, white and three uninsulated cables. I assumed that the uninsulated cables could be twisted together This assumption turned out to be correct , because if there was a concern that they couldn't touch, they'd be insulated too The interior insulated cables have VERY stretchy plastic. It was very difficult to strip these with fingernails. So I used the soldering Iron to melt the plastic and it came off very easily. Be carefull not to melt other parts of the cables. Strip the three cables at 3 seperate lengths. The goal is to have connection points at different intervals along the cable so it helps with keeping the cable thin, and helps stops wires crossing. I started with the intention of having a 2" length of cable exposed, however I found this too short to work with. I will do 3" next time. If the green cable is short on one end, it has to be long on the other to line up properly. It is extremely important that you measure the correct lengths or your cables will not line up in length after you reattach them. Recheck the length of each cable versus the other before making cuts so you know they all line up correctly. Put a length of shink tubing on one of the cables and slide to one end for later use. Twist one of the stripped interior cables together, solder using the helping hands to hold the cable. Cover the cable with the least amound of electrical tape possible. Repeat for the other two insulated cables. Make sure the length of all cables are soldered at the same length. Solder the three uninsulated wires together. I cut off the nylon core. It was annoying. I wrapped the core cables back up in the existing 'tin foil' but it ended up being too thick at this point, so used electrical tape again. Solder the exterior interweaved cables. This is not necessary as this has been cut off. Slide the shrink tubing over the entire connection. I had a big problem at this point. Everything was too thick so I really had to force it into place. This may have messed up some internal connections. Use a heat gun or a lighter to shrink the tubing into place. If you use a lighter, move it quickly all around so as not to burn the tubing. That's all folks. I'll update this on my next attempt if it works properly or not. If you have mistakenly soldered the wrong configuration of wires and used the charger along with the repaired lightning cable, will it break your iOS device's lightning port? I've recently had this experience Reply 1 year ago. Trying to restore, reset does nothing. Reply 5 years ago. I don't know, I have never experienced this. The only way I can suggest troubleshooting is to try different original apple lightning cables as you have done and since there is no difference, it would suggest the iphone is broken. And also ensuring the cable you are using to test not the one suspected of breaking the phone works with other phones. If all fails, try restoring your iphone. If that also fails, unfortunately suggest you'll have to contact apple support. I found some "Liquid Tape" made by Gardner Bender at Lowe's that works great for covering these small cables. It is a pain to put on with the built in brush as it was obviously designed for applying to lager cables, but a little paint brush or something like that works fine. Turns out neater than using electrical tape in some cases like the little solders of the insulated cables in this cable. I'm sure there are other brands of this stuff so just look around. It's worth having on your workbench. I've been using their repair kits to prevent my kids from destroying so many Apple charger Lightning cable connectors. Thanks Apple. The lightening cable itself is a low voltage data transfer cable. It is a shielded and individually grounded three conductor low voltage data transfer cable. Similar to Ethernet, telephone, or industrial signal cables. Individual components of cables are all useful and necessary. I agree with you that all components to cables are there for a purpose. As with any

electronics, modify at your own risk. Individual components of cables all have a function and are all necessary for the cable to perform as designed. The "tin foil" is called Mylar. Both the Mylar and the braided outer jacket are the cable's shield. These shields eliminate any electrical interference "noise" from adversely effecting the circuit by interfering with the low voltage transmission of data. Induction also causes a change in voltage and current to levels that may damage both the cable itself and possibly any device plugged into it. Cut them off, or not properly splice them, and you could experience adverse reactions, or even damage. The braided sheathing and the tin-foil are both there for good reason; they shield the cable and other devices from interference. Also, the nylon within also serves a valuable purpose as a "strain-relief" to help prevent the cord and your connections from being pulled apart. Reply 5 years ago on Step 7. Agree these "extras" are always there for a purpose. By w1se Follow. Thanks for bringing this to our attention BenC33 I wanted to shorten one of my iPhone 5 lightning cables for my car charging purposes so I thought I'd give it a whirl. Did you make this project? Share it with us! I Made It! Light Up Clock 2. Mars Clock by prdassonville in Clocks. BenC33 5 years ago. Reply Upvote. What part of the phone is broken? TommyYorkIII 4 years ago. BenC33 5 years ago on Introduction. Jason43 5 years ago. AnthonyR13 5 years ago. AnthonyR13 AnthonyR13 Reply 5 years ago. FYI: The braided sheathing and the tin-foil are both there for good reason; they shield the cable and other devices from interference. I updated this instructable with a method that made it work properly. The majority of them use USB cable. The cable can be used to transfer data from one apparatus to another. It can also connect device to a power supply for charging function. Knowledge on recommending parts of USB will assist user in finding out which part that must be adjusted. For crafty users who wish to build their particular USBs, this diagram will act as a principle. USB cable is also known to be quite a serial bus. The cable consists of four layered wires. Meanwhile, the remaining two wires are for data signals. There are four kinds of data rates in USB cable. The first one is Low Speed with transfer speed about 1. The Super Speed rate goes past that with transport speed of Mbit per second. In order to construct a USB cable, you have to collect these substances. Typically it utilizes black, black, white and red cable colours. Black cable serves as ground, just like in every other apparatus. The red one is for positive cable with DC ability of 5 volts. Green and white function as information cable with green indicates negative and white as optimistic. Utilize the solid wires, instead of the ones that are stripped. Strip about a centimeter in the endings. After that, cover the entire wires with large skillet tube. Each cable should also be covered by smaller shrink tube. The following part is also critical in the process of making USB cable. Being neat as possible in this procedure is quite important. First, the electrical meter should be placed into Ohm setting. Match both ends until the meter creates a sound that indicates closed circuit. After that happens, it is the right time to solder each cable into their various parts. Twist the cables with shrink tube also. When the USB cable was fully created, now is the time to test this tool. User may check if the cable can help charging electronic device that supports USB connection. Attempting out the cable to look at its data transfer capacity can be highly advised. It can also help user building their own USB cable based on specific needs, such as rate and cable length. Hopefully, this info will be put into a good use! Most of them utilize USB cable. The cable can be utilized to transfer information from one apparatus to another. It can also link device to a power source for charging functionâ€¦ Wiring Diagram Usb Camera â€" There are numerous types of electronics on the market. The cable can be used to transfer data from 1 device to another. In addition, it can link device to a power source forâ€¦ The cable may be utilized to transfer data from 1 apparatus to another. In addition, it can connect device to a power supply for charging functionâ€¦ Usb And Switch Wiring Diagram. Most of them use USB cable. The cable can be used to transfer information from 1 device to another. It can also link device to a power supply for charging function. Knowledge on constituting parts of USB will aid user in finding out which part that needs to be fixed. For crafty users who want to construct their own USBs, this diagram will function as a principle. USB cable is also regarded as quite a serial bus. The cable is made up of four layered wires. The remaining two cables are for data signals. There are four types of data rates in USB cable. The initial one is Low Rate with transfer speed approximately 1. The Super rate goes beyond that with transfer rate of Mbit per second. So as to construct a USB cable, you have to collect these materials. Typically it uses black, black, red and white wire colours. Black cable serves as floor, exactly like in every other apparatus. The red one is for positive wire with DC ability of 5 liter. Green and white function as information wire with green indicates white and negative as positive. If you are utilizing Cat-5 cable subsequently take just four of the cables with colours defined as in the preceding part. Use the solid wires, rather than the stripped ones. Strip about a centimeter from the ends. Following that, cover the whole wires with large skillet tube. Each cable should also be covered by smaller shrink tubing. The following step is also essential in the process of making USB cable. It is soldering the wires into

the connector at a conclusion. Being neat as possible in this procedure is quite important. After the initial end was finished, it is time to proceed to the other one. First, the electric meter ought to be placed into Ohm functioning. Match both ends till the meter creates a noise that indicates closed circuit. Twist the wires with shrink tube also. When the USB cable has been fully created, now is the time to check the tool. User may check whether the cable may help charging digital apparatus that supports USB connection. Trying the cable out to check its information transfer capacity can be highly recommended. Having knowledge of Lightning Connector To Usb Wiring Diagram and its parts can help user finding out what is wrong with the apparatus when it is not working. It can also help user building their own USB cable according to specific demands, such as speed and cable length. Hopefully, this information will be put to a great use! Most of them utilize USB cable. The cable can be utilized to transfer information from one apparatus to another. It can also link device to a power source for charging functionâ€¦ Wiring Diagram Usb Camera â€" There are numerous types of electronics on the market. The majority of them use USB cable. The cable can be used to transfer data from 1 device to another. In addition, it can link device to a power source forâ€¦ The cable may be utilized to transfer data from 1 apparatus to another. In addition, it can connect device to a power supply for charging functionâ€¦ Lightning is the "new" connector supported by iPhone 5 and newer, iPad mini and newer, iPad 4th generation and newer, up to but not including the iPad Pro line, iPad Pro inch and iPad Pro Siri Remote and Apple Pencil also use Lightning. For the old connector, see pin Connector. This would only be for any in-between updates, though, since both iOS 6. Each firmware bundle is about 11MB uncompressed. The kernel is then uploaded and then booted. This adapter lets you connect devices with a Lightning connector to many pin accessories but some pin accessories are not supported. The adapter supports analog audio output, USB audio, as well as syncing and charging. Video output not supported. The chips inside look unfamiliar and some have lasered text. They all appear to be custom and probably some are integrated audio circuitry in a larger processing chip. One of the chips reads Apple on it with a very long serial number. This series of processors is mainly used in the iPod nano, and the iPod touch 2nd generation. The SoC peripherals look very much akin to other Samsung chips. Apparently an Apple Engineer explained details of the adapter at Lightning is a serial bus. There is no clever wire multiplexing involved. Airplay itself the network protocol is NOT involved in this process. This system essentially allows us to output to any device on the planet, irregardless of the endpoint bus HDMI, DisplayPort, and any future inventions by simply producing the relevant adapter that plugs into the Lightning port. Certain people are aware that the quality could be better and others are working on it. For the time being, the quality was deemed to be suitably acceptable. From The iPhone Wiki. Jump to: navigation , search. Category : Article stubs. Navigation menu Personal tools Log in. Namespaces Page Discussion. Views Read View source View history. Miscellaneous Ground rules Timeline. This page was last edited on 31 October , at This hardware article is a "stub" , an incomplete page. Please add more content to this article and remove this tag. Fourth generation iPhone. Repair is straightforward, but the front glass and LCD must be replaced as a unit. So my iPhone charger cable was broken, and i attempted to fix it myself. I opened the case and found the little green platform don't know what does are called which has label of W, G, R, and B. I figured those stand for White, Green, Red, and Black. However, when i cut open the wire from the middle, I found only 3 wires. Red, White, and Green. Since I also wanted my charger to be charge only, I searched online and figured that I only need the red and black cabled. Other than the red, green, and white, I also found 4 bunches of ultra thin wire grouped together. Are those the black cable's inside? Alex, interesting little project. How about you post some images of the circuit board green platform and your cable and let us see what you see. Use this guide Adding images to an existing question to add images. Jon H J. As above, there are three colored wires Green, white and red and additional unwrapped thin wires in the bundle. All of it is wrapped in foil, a braided sleeve and the rubber on the outside. If you're looking to power a device - you need the need the redish orange wire and the loose wires, the loose thin wires can be twisted into a cord and soldered in place. This info is useful you want to power a device if the connection the female cable connection shorts. I directly connected an LED light, for example. Chevy Massey chevy The extra thin wires are the black wire with no insulation I had the same problem I just wrapped the part I didn't want striped with some electrical tape. Your welcome. Ben benjamen You have a weaved wire that should be on the out side of the cluster of wires that is housed in plastic thus being your ground or 4th wire. To my great surprise, no black wire. Red, Green, White and nothing else. So the Red is the power, normally 5 volts. Since there is no black wire you have to use the shield which is usually wrapped around a piece of foil. I have soldered two cables like this: red to red and black to the shield as you reccomend. When I plug in, iphone opens but does not charge. Can you pls explain why? Joseph Smith joey Alright bro if your really trying to do this and just want it to

charge you just need the black and red wire. If you want it to exchange data or download something off a different device your going to need the white which is the positive data wire while the green is the negative data wire and those above which I listed black,red. Just make sure you connect those wires to the correct corresponding mounts or you'll short your it out. Be careful. Tried it and I accidentally discharged my phone battery. I was just board and was using my old iPhone 5. If you look with magnification you will see there is a small uninsulated braided cable in there. It easy to not see it and you will Accidentally pull it down into the mess of strings and mesh wires that you want out of the way. Data is sensitive when transferring. Apple actually rocked it. They made two isolated power conduits. One for data and one for the fast charging. The cable plugs are filled with Industrial strength epoxy glue the circuits come off the board before you can apply enough force to separate. I think. Dee Ennis. Lorenzo Supa. I was having the same issue until I found the blue wire mixed in the middle. Beth Ann. My charging chord for an iphone the original has a yellow green red and white wiring system. Can anyone break these down for me? January 6 by Ff Gg. Posted: 4 days ago February 20, The extra slim wires are the dark wire with no protection I had a similar issue I just wrapped the part I didn't need striped with some electrical tape. Your greeting Best Offset Smokers. The further down the wire I strip I find more bare wires. Total of 2 so far. One copper and one steel color. The copper wire is just as long as the colored ones. The other 2 are supposed to be down further. I will post a picture of what I have if I Can figure it out. Eric Burson. Posted: 3 days ago February 21, Hope it comes out. I see it. First time I hooked up the 4 wires on the left. It discharged my battery fast. I cant find any solid info. Fix Your Stuff. Back Answers Index. Alex Rep: 37 2 1. Answer this question I have this problem too Subscribed to new answers. Is this a good question? Yes No. Voted Undo. Score 3. Most Helpful Answer. Was this answer helpful? Score 5. Score 2. Chevy Massey chevy Rep: 25 1. Ben benjamen50 Rep: TL-DR: Don't be cheap, buy another cable and even better get one that is good quality. White is a data cable that is on positive volts. Green is also a data cable but lives with the negative. Red is hot. Score 1. Joseph Smith joey Rep: 1. Score 0. Just make a ground if you can't find it. I have a green white an red an trying to figure out how to wire it to a red an black. Dee Ennis Rep: 1. Lorenzo Supa Rep: 1. The coating was gone by the time I discovered it was there.? Beth Ann Rep: 1. Did you find a solution. Posted: 4 days ago February 20, Options Permalink History. Eric Burson Rep: 1 1. Posted: 3 days ago February 21, Options Permalink History. Add your answer Alex will be eternally grateful. View Statistics:. With this kind of an illustrative manual, you will be able to troubleshoot, prevent, and full your assignments without difficulty. Not only will it enable you to accomplish your required final results quicker, but in addition make the whole method simpler for everybody. This book can demonstrate for being the perfect device for all individuals who want to create a well-organized and well-planned functioning environment. Wiring Diagram will come with a number of easy to follow Wiring Diagram Guidelines. These guidelines will likely be easy to comprehend and use. Using this guidebook, you may be in a position to determine how every element needs to be linked as well as the exact actions you ought to consider as a way to efficiently total a particular job. Wiring Diagram contains many in depth illustrations that display the relationship of various products. It includes instructions and diagrams for various kinds of wiring methods along with other items like lights, windows, and so on. The book includes a great deal of sensible strategies for numerous scenarios that you may encounter when you are dealing with wiring issues. Each one of those tips are illustrated with useful examples. Wiring Diagram not just provides detailed illustrations of whatever you can perform, but also the procedures you need to stick to while doing so. Not just can you find various diagrams, but you may also get step-by-step instructions for a particular venture or topic that you would like to know more details on. Additionally, Wiring Diagram provides you with time frame by which the projects are for being completed. You may be capable to know precisely if the tasks should be completed, which makes it much simpler for you personally to effectively control your time and efforts. Wiring diagram also gives useful recommendations for assignments which may demand some additional tools. This book even contains suggestions for additional provides that you may want to be able to finish your assignments. It will be in a position to supply you with further gear like conductive tape, screwdrivers, wire nuts, and so on. Wiring Diagram contains the two examples and step-by-step instructions that might enable you to definitely actually construct your venture. This is helpful for each the people and for experts that are looking to find out more on how to set up a operating surroundings. Wiring Diagrams are made to be easy to comprehend and easy to build. You are able to locate this guidebook easy to use as well as really affordable. You are able to usually depend on Wiring Diagram as an important reference that will assist you to conserve

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money and time. With the help of this guide, you can effortlessly do your personal wiring tasks. Regardless of what you will need it for, you are able to always discover a listing of various materials that you will want to perform a activity. Furthermore, this book offers practical suggestions for a lot of various assignments which you will be capable to accomplish. With this kind of an illustrative guide, you are going to have the ability to troubleshoot, avoid, and complete your assignments with ease. Buy Here Ballast Wiring Diagramballast wiring diagram â€" You will need a comprehensive, professional, and easy to comprehend Wiring Diagram. With such an illustrative guide, you will be able to troubleshoot, avoid, and complete your projects easily. Not only will it assist you to attainâ€¦ With this kind of an illustrative guidebook, you are going to be capable of troubleshoot, avoid, and complete your projectsâ€¦ Golf Cart Solenoid Wiring Diagram. Trailer Light Wiring Diagram 7 Way.