

**DICE iPod Integration Kit Installation Instructions for BMW 7  
Series '98-'01 (E38)**

**IF THE BELOW STEPS AND  
SUBSEQUENT PROGRAMMING  
ARE NOT PERFORMED EXACTLY  
AS OUTLINED, YOUR DICE KIT  
WILL NOT FUNCTION PROPERLY.**

**If you have any technical or operational questions not related directly to the physical installation of the Dice unit, please call Dice technical support directly at 1.888.342.3999.**

**Before you begin the installation process, it is IMPERATIVE that you read and understand the following information.**

- **The Dice module is a very complex piece of hardware that is responsible for very complicated communications between your iPod and your BMW.** It will not just “work” once you plug it in. Much like a computer, it requires patience and an understanding of the hardware and its operation to use.
- **Your iPod MUST be updated with the very latest firmware from Apple.** To get this software, you must have the latest version of iTunes installed on your computer, connect your iPod, and update the software through iTunes. Before you attempt to install your DICE kit, make SURE that your iPod has the latest firmware installed or the DICE kit will exhibit erratic operation.



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- **Your iPod must have a complete charge before you attempt to use it for the first time with your DICE kit.**
- **The DICE kit requires a “boot up” period called initialization. NO OPERATION during this period can be performed. You must wait until both the vehicle and iPod have completed the initialization to use the system.**
- **You must be PATIENT when operating the DICE iPod integration kit.** Because there is a great deal of communication occurring between your car, DICE system, and iPod, operation is NOT instantaneous. With each button press, you must wait a moment or two to allow the hardware to communicate and function.
- **The DICE system has a learning curve.** If you do not read the included operation manual, you will not be able to figure out how to use the system. **READ THE OPERATION INSTRUCTIONS FIRST!**
- **We recommend a “dry run” before you route the Dice cable to the front of the car.** Follow all wiring instructions below to ensure proper operation.

**Tools Required:** Available at any local auto parts store

<ul style="list-style-type: none"><li>• Panel Removal Tool</li><li>• Philips Head Screwdriver</li><li>• Radio Removal Tools</li></ul>	<ul style="list-style-type: none"><li>• Metric socket set</li><li>• Torx bit set</li><li>• Brain</li></ul>
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## The Process:

- **Disconnect negative battery terminal before proceeding.**

We'll begin by disassembling the trunk first. From there, we'll run the Dice cable to the front of the car, at which point we will plug the cable into the Dice module. From the Dice module, we will route the cable that connects the Dice module to your Ipod. Lastly, we will initialize the Dice system.

Begin by removing all items from the trunk of the vehicle. Make sure that all tail lights are in working order. If not, now is a good time to replace them. Also remove the carpet that covers the floor of the trunk, as it will reveal a couple of fasteners that will need removing.

## Trunk Disassembly and Wiring Connections:

We'll first need to remove the Navigation Unit and its trim ring before we can remove the side panel from the car. So, let's get started.

1. Using a radio removal tool (available at any auto parts store) insert one tool into each side of the navigation unit. Pry each tool outward and slide the navigation unit out. Unplug the harnesses and navigation antenna. Carefully place the unit aside, being careful not to turn it upside down.



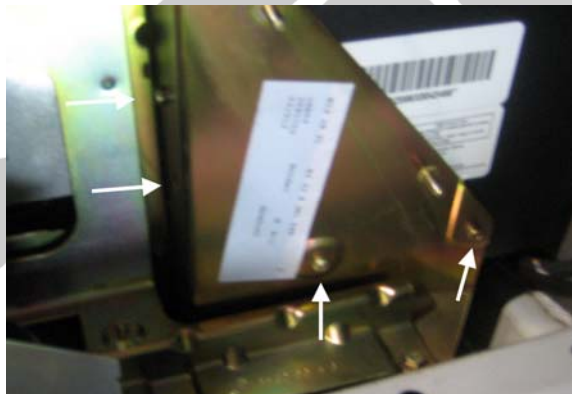
2. Now, we'll need to remove the trim ring from around the navigation unit. You'll see how it's hooked into the metal frame. Just pry it out from around the frame and pull it towards you.



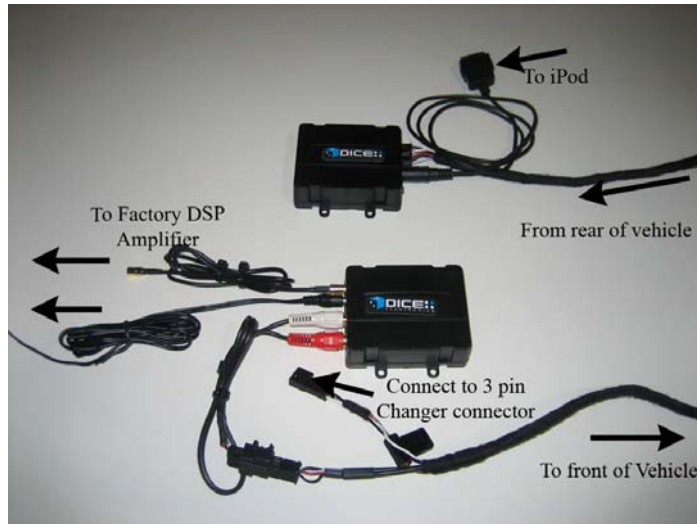
3. Now we'll need to remove the top portion of the carpeted panel that was covering the CD changer and navigation unit. Simply pry the panel from around the navigation cage and CD changer outward. We'll need to unscrew the two black plastic fasteners at this point.



4. Lift up the carpeted liner on the floor of the trunk and you'll notice two black plastic fasteners attaching the bottom part of the panel to the floor. Remove these and the panel will be free to remove from the car.
5. We'll need to now remove the changer. Simply unscrew it, as it's held into place using 4 Philips head screws. (See arrows) The cables plugged into the changer will be used in our Dice installation, so be careful with them. Just unplug the changer and set it aside with your navigation unit.



1. Let's go ahead and begin the wiring for the DSP adapter. Here's a visual for how the actual signal will flow from the Dice module into the factory system:



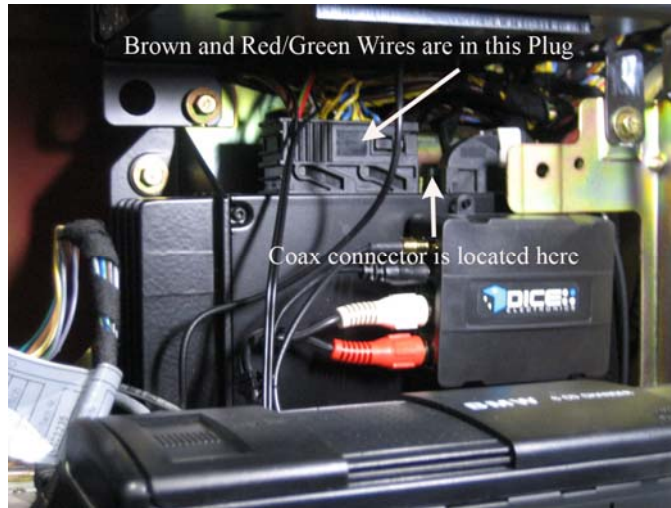
**DO NOT PLUG the 3 pin connector at this time! That will be the very LAST thing that you'll do upon completing every other step of the installation.**

In regards to the 3 pin connector, it is **IMPERATIVE** that the brown wire on the BMW side of the pin be on the outside, and not the middle. See the photo below. If your plug does not look like this, you have found the wrong plug.



You will need to install the DSP adapter module inline with the Dice Module.

- Take the factory coaxial cable that runs from the CD Changer to the amplifier out of the vehicle. Simply unplug it from the top of the amplifier as well as from the CD Changer.
- Mount the DSP module in a secure location.
- Locate the new coaxial/RCA cable in the DSP adapter packaging. Plug the coaxial end into the amplifier and the single RCA connector into the DSP module. (See photo and arrows below)



- Locate the dual RCA/six pin connector in the DSP adapter packaging. Plug the RCA Cables into the DSP adapter and the six pin connector into the Dice/Aux Cable that will be run to the front of the car.
- Power the DSP using the factory wiring at the factory amplifier. The heavy gauge brown wire is ground, and the heavy gauge Red/Green Stripe is sufficient for power. **They are located next to one another.** On your DSP adapter, the wire with the white stripe is power and the solid black wire is ground.
- Using the supplied T-Taps, simply tap into the factory wiring by making a small incision in the wire's insulation using a razor blade or sharp object. Be careful, don't cut yourself! ☺
- Now, clamp down each T-Tap onto the factory wire. Make sure the metal tab inside of the T-tap aligns with your incision.
- Make sure the T-Tap snaps into place. Now slide the DSP module power wires onto their appropriate connectors.

Your connections will be as follows:

Wire Color at DSP Adapter		Connects To:	Wire Color at Factory Amp	
Black w/White Stripe			Red/Green Stripe	
Black			Brown	

**\*Remember to not plug in the 3 pin connector yet!\***

## Routing the cable to the front of the car

1. We'll need to get the wires into the front of the vehicle at this point. We'll route the Dice cable behind the carpeted side panel and into the cabin. First remove the black fastener located just underneath the rear deck using your panel removal tool.



2. Pry back the panel and decide on your routing into the cabin at this point.



3. Well, the most time consuming part is upon us. We need to remove the back seat completely, including the rear deck and subwoofer assembly. I know it sounds like a lot, but it won't take more than hour. So, let's move into the cabin and begin disassembling the back seats.
4. First remove the bottom of the rear seat by pulling upward on the front of the cushion. There are two hooks on either side that need to be disengaged. This is super easy to remove. (See arrows)



5. You'll next want to remove the back portion of the backseat. First remove the three headrests from the seat cushion. Do this by lifting upward on each headrest. You may find it easier to pull up on one side at a time. This seems to work best if you don't want bust a vein in your forehead while trying to remove those headrests.
6. Now locate the 10mm bolts that line the underside of the seat which secure the cushion to the rear firewall. There are bolts on either outer side of the cushions where the cushion meets the sides of the car. Two nuts will also secure the arm rest portion toward the center of the seat. There is also a nut underneath the center of each side cushion. Remove all of these.
7. You'll want to remove the back seat in three pieces. Start with the outer sides, and remove the center portion lastly. Lift each piece upward and outward towards the front of the car.
8. The seatbelts can be removed as well on the passenger side just to make your life a bit easier. A 17mm bolt secures the seatbelt assembly. Remove this.

#### Removing Interior Pieces:

You'll also need to remove the C-Pillars on either side of the rear windshield.

1. Using a panel removal tool or flathead screwdriver, carefully pry outward on the top of the lighting assembly, freeing the top portion. The bottom will simply fold out toward you once the top is free.



2. Unplug the harness going into the light by gently pulling it outward from the assembly.
3. There are three 8mm bolts behind the light. Remove these.



4. Now, pull the actual C-Pillar toward the front of the car, being careful not to scratch your rear window tint.

Before you get much further, go ahead and pop out the speaker grilles located on either side of the rear deck. You can use your fingers here. Be careful and don't force anything.



5. Work your way around from the front of the grille (side closest to you) and around to the sides, being careful not to break the grille. Lift upward, and then toward you. The rear of the grille is simply slid underneath the deck.
6. Remove the two 2mm Allen bolts located underneath each grille.



Now, some E38's are equipped with baby seat tie downs on the rear deck. There will be three of them across the rear deck. If your E38 doesn't have these, the bolts mentioned below will be underneath the rear deck once you've removed it. They will still need to be removed.

7. To remove the tie downs, you'll first pop off the plastic cover that sits atop the circular rear portion of the hook. Simply use your panel removal tool or your fingers if you're really tough.



8. 13mm bolts will be revealed, and you'll need to remove them using a ratchet or wrench.
9. Notice the four black plastic anchors that run along the width of the bottom edge of the rear deck. (See arrows) These need to be removed. Now the rear deck is free. Simply pull it toward you and out of the vehicle.



Now you can route the Dice cable from the trunk up into the grommet and through the rear deck.





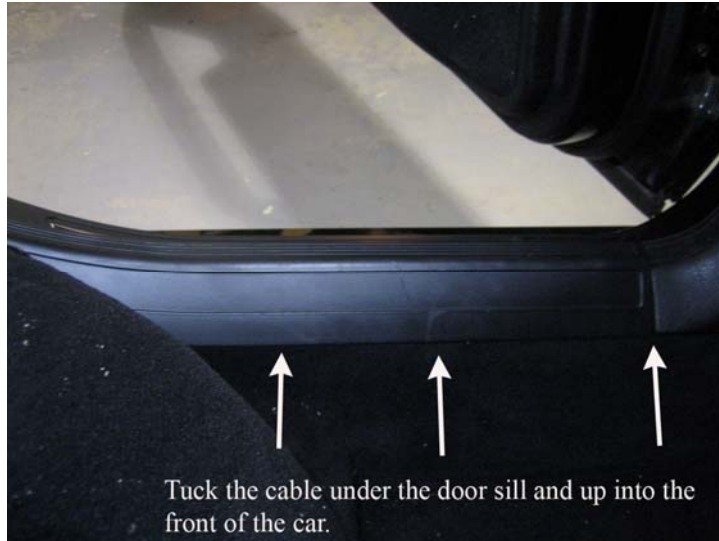
Safely route the Dice wire down the side panel and into the bottom portion of the backseat. Follow the existing harness that is already in place. We'll need to begin routing the wire up to the front of the car at this point.



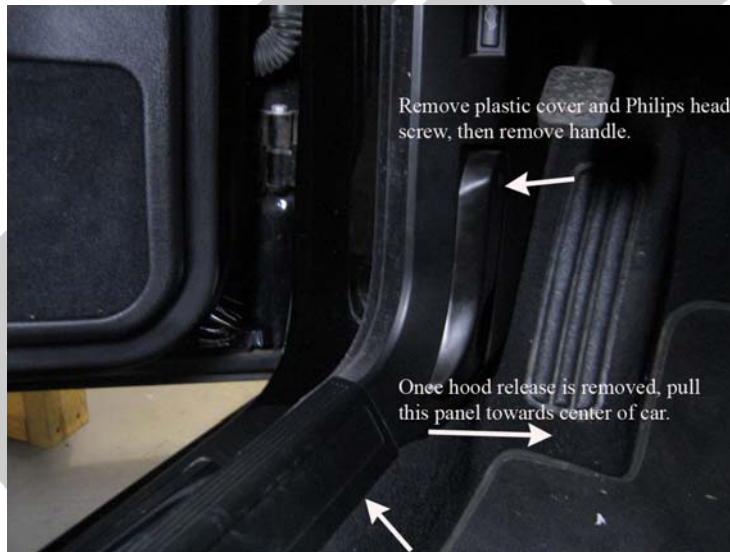
Now begin routing the cable underneath the door sills and up into the driver's foot well.



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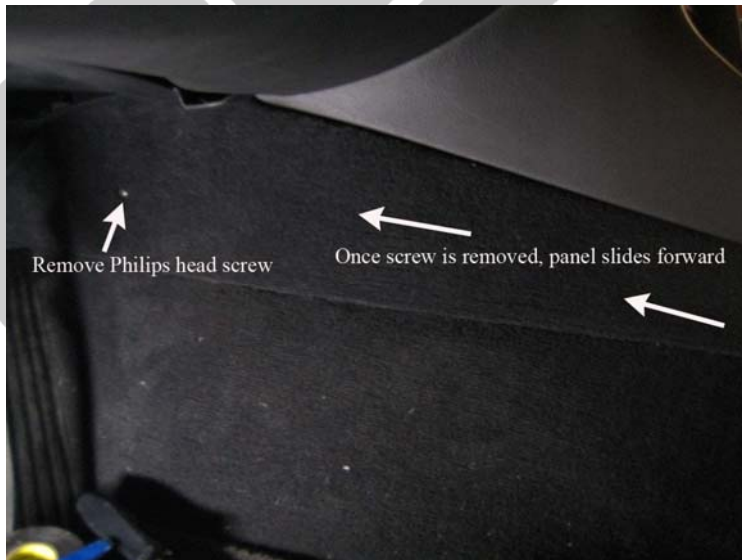
Tuck the Dice cable underneath the door sill where it meets the carpet.



Bring the Dice cable up underneath the kick panel sill and into the driver's foot well.



Now, we need to remove the carpeted panel lining the center console. Just remove the one screw and slide the panel forward.



Now, we'll need to decide where/how we're going to mount the iPod. If using the spec.dock, follow the included instructions. If not, we recommend just removing the leather boot and having the cable from the Dice module snaking up in between the boot and the console.

Once you've completed this, and plugged everything into the Dice module, we can move on to finishing the installation process.

At this time, you can head back into the trunk and plug in the 3 pin connector at the junction of the BMW cables and the Dice cable. Also reconnect your negative battery terminal.

## Programming the Dice Module

Now we can begin the programming, which is super easy if you follow these steps:

1. Turn the ignition on and **wait approximately 20 seconds before** beginning to use the Dice module. This is **VERY** important. **Do not** attempt to use the iPod during this time.
2. On your head unit, press the CD button twice until you see the Dice module appear on the screen. It will usually say "CD 01-01" at first, or "INIT" for initializing.
3. To enable text, simply press button #6 on your radio and **wait a few seconds**.
4. The radio will automatically advance to track #1. Advance to track 3. Once you've done this, the text will be on the gauge cluster below the speedo/tachometer. This prevents the navigation and the iPod fighting for screen space. Once you've gotten the text up on the cluster, press button #1 on your radio. This will allow the Dice to sync with the BMW system.
5. Again, **before** you attempt to control the iPod, **give it a few seconds** to sync up with the communication system in your BMW.

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## Using your DICE module in your BMW:

When changing tracks on your iPod using your steering wheel controls or radio controls, **do NOT press the button in rapid succession in an attempt to change songs faster.**

This will cause communication issues with the DICE module. Rather, press **the buttons one at a time**, to allow the radio and the iPod to change songs at the same time.

If you want to rapidly change tracks, do so directly through the iPod controls.

## Troubleshooting Guide:

If your Dice module begins acting up in **any** way, there are a few simple procedures that will most likely solve any issues that you may be having.

1. First and foremost, it is **imperative** that your iPod is up to date with the most current firmware. This firmware is available at the iTunes website. This solves most problems with the Dice modules.
2. Check to make sure that your iPod battery has enough of an initial charge to function properly. This is a very common reason we see the Dice modules not working as they should. If not, the iPod periodically needs to be charged via the AC adapter that came with it. USB charging will not work on an iPod that has completely lost it's charge.
3. Reset both the iPod and the Dice module.

To reset the iPod, you will simultaneously hold down the center button and the menu button for approximately 10 seconds until you see an apple appear on the screen of the iPod.

To reset the Dice module, you will want to completely disconnect the module itself, meaning both the cable coming from the trunk and the cable going to the iPod. At this point, it is imperative to leave the module disconnected **for at least half an hour**.

Now, plug the Ipod cable back into the Dice module, then plug the cable coming from the trunk back into the Dice module. Refer to the section above for the proper initialization programming sequence.