

DICE iPod Integration Kit Installation Instructions for BMW 5 Series, M5 '97-'03 with DSP (E39)

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

- ***If you experience the Dice Module not operating correctly upon the initial installation, head to the trunk and unplug the 3 pin connector for approximately 1 minute. This will resolve 99% of all issues that may have arisen. Plug the connector back in and reattempt the initialization process.***

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 has to be precisely programmed in order to communicate with existing components in your BMW.
- Your iPod **MUST** be updated with the very latest firmware from Apple. To do so, go to iTunes.com, download the latest version of iTunes, and install. Connect your iPod, open iTunes, and select your iPod. Update firmware if available.
- Also, it is **IMPERATIVE** that your iPod has a complete charge before you attempt to use it for the first time with your Dice module.
- Again, much like your computer, the Dice module requires a thorough initial programming sequence, as well as a great amount of **PATIENCE** during this initialization. Please perform these initial programming steps

carefully and methodically.

- **We recommend a dry run, meaning before you route the cable from the front to the rear of the car, test the Dice kit in the trunk. Follow all instructions regarding the wiring, and give it a go before you get too involved.**
- ***If you experience the Dice Module not operating correctly upon the initial installation, head to the trunk and unplug the 3 pin connector for approximately 1 minute. This will resolve 99% of all issues that may have arisen. Plug the connector back in and reattempt the initialization process.***

Tools Required:

- Panel Removal Tool
- Philips Head Screwdriver
- 8mm socket wrench (CD Changer Removal)
- Wire Crimpers/Cutters
- **Brain**

The Process: **Disconnect your Negative Battery Terminal First!**

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 module.

1. 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.
2. Open the door on the driver's side panel if the trunk to reveal the factory amplifier/CD Changer/Navigation Unit. This is where our connections will take place.





BAVARIAN SOUNDWERKS

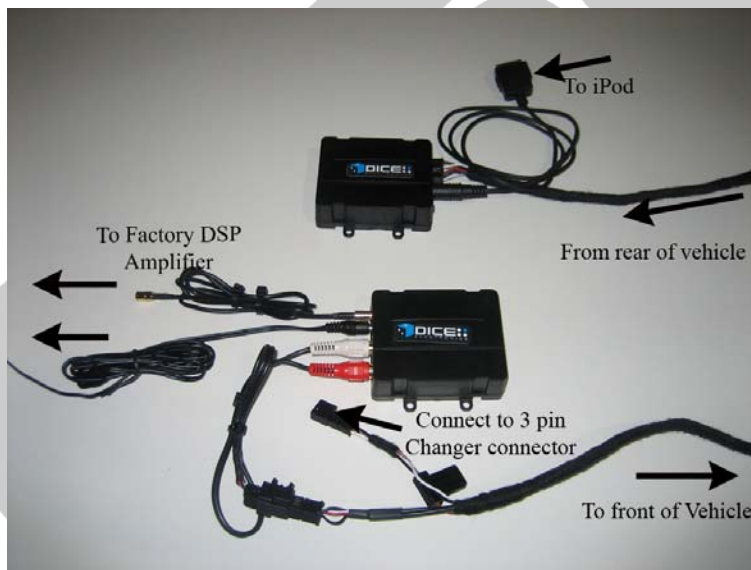
Okay, let's keep it simple. **If your 5 Series has a CD Changer**, we won't have to look far for the appropriate cables that we'll be using, as they'll be plugged into the changer.

If your 5 Series does not have a CD Changer, let's then begin with the easiest part. We need to first find the elusive BMW 3 pin and coaxial (audio transmission) cables that hide themselves inside the rear driver side panel in the trunk of your 5 Series.

IMPORTANT NOTE: If your 5 Series has a build date of 08/02 or higher, there is a possibility you will not need the DSP adapter you purchased. Instead of a coaxial connector, you'll find a 6 pin connector that's the same as that on the wiring harness of the included DSP adapter. If this is the case, simply pretend you've completed the DSP adapter installation section of these instructions and continue from there. Then just give us a call or send an e-mail and we'll refund you for the unneeded DSP adapter.

Let's Wire the DSP Adapter:

Now, how do you get the music into the system you might ask? Like so: First, let's identify your wiring connections, and what wires will go where. Don't get overwhelmed, we're only making two wiring connections here! ☺



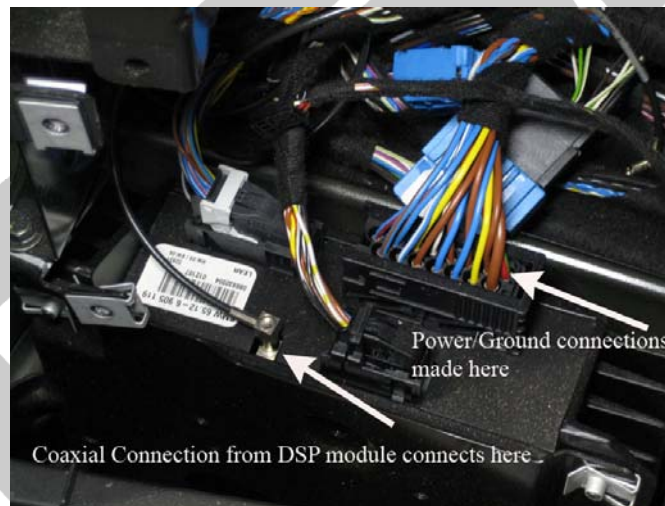
Keep in mind that the LAST thing we'll do is plug in the 3 pin cables together. Go ahead and plug in the 6 pin cable to keep the cable from getting pulled through the side panel. **In regards to the 3 pin connector, it is IMPERATIVE that the brown wire on the BMW side of the pin be on the outside, and not the middle. See the photo below. If your plug does not look like this, you have found the wrong plug.**



- **The 3 pin connector needs to have the brown wire located in one of the outside pins.** If you find a 3 pin connector with a brown wire in the center pin, that is the incorrect plug.

Mount the DSP module in a secure location near the factory amplifier. Plug the coaxial cable from the DSP adapter into the amplifier's coaxial input, which is located on top of the amplifier. The RCA to 6 pin adapter will plug into the 6 pin connector on the longer harness that runs to the front of the vehicle.

To power the DSP module, we'll tap into the factory wiring as it enters the top of the factory amplifier. We'll be working with the largest plug of the three. **The two wires we'll be using are located next to each other in the harness.**



How do I make the Power Connections for the DSP adapter?

It's easy! Using the supplied T-taps, we're simply going to tap into the factory wiring without cutting the wires. To do this, proceed as follows:

- Make 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 the lock position. Needle nose pliers do the job well.

- Now, slide the DSP Module Power wires onto their appropriate connectors.

Wire Color on DSP Module		Wire Color at Factory Amplifier
Black/White Stripe	Connects To:	Heavy gauge Red/Green Stripe wire
Black		Heavy gauge Brown wire

Routing the cable to the front of the vehicle:

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.



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



2. Let's now go ahead and pop out the bottom portion of the backseat. To do this, simply lift the front portion of seat upward, and the entire seat will free itself. Remove it from the car.



(7 Series shown; 5 Series is identical).

3. Now route the cable up into the cabin by folding down the rear seats in vehicles with fold down seats and snaking the cable underneath the seat and into the bottom of the backseat area (where you sit). **Be careful** to not let the leather rest on the metal tabs that secured the bottom of the backseat into place. We recommend placing a towel or some other soft barrier between the leather and the metal tabs.
-If your vehicle doesn't have fold down seats, we will need to remove the back seat. Look for a 10mm bolt on either side of the bottom edge of the backseat cushion where it meets the sides of the car. Remove the headrests; now firmly lift the entire back seat upward.

4. We'll route the cable through the hole shown below:



5. You'll now proceed to routing the cable alongside the door sill down either side of the vehicle. You can simply tuck the cable underneath the plastic sill all the way underside of the glove box.

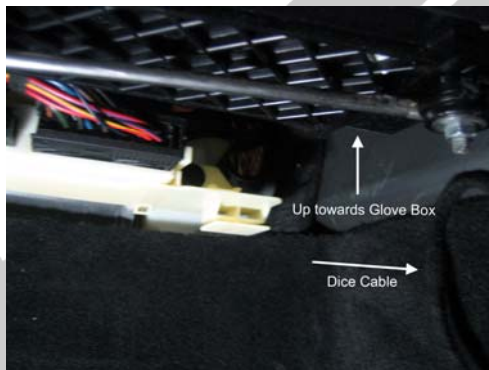
If you are going to have your iPod live in the glovebox, you will want to route the cable down the passenger side of the cable. If you are installing the spec.dock, you will want to route it down the driver's side and over towards the center console.

Glove Box Mounting:



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

6. Bring the Dice cable up underneath the kick panel sill and into the passenger footwell.
7. As the cable comes up towards the glove box, you'll want to begin thinking about where you'll mount the Dice module. Most of the time it's easiest to just place the module underneath the black under panel in the passenger floorboard, which can be removed by unscrewing the two Philips head screws that secure it to the dashboard.



8. Now that the cable is up front, simply plug it into the Dice module, and from the Dice module, route the iPod cable up into the glove box.



9. **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.

Center Console/Spec. Dock Mounting Option:

Again, we're just going to tuck the Dice cable along the underside of the carpet where it meets the plastic door sills until we reach the driver's kick panel area. At that point, we're going to proceed as follows:

1. Remove the black plastic panel that is directly above the pedals by removing the four brass Philips head screws.



2. Now remove the lone brass screw on the carpeted panel that lines the center console to the immediate right of the gas pedal, and slide the panel rearward.



3. Now, tuck the Dice cable up and around the plastic kick panel plate, and up into the area above the black plastic panel that you loosened. From here, you'll just snake the cable down into the area behind the carpeted panel and voila! Secure your Dice module here, and plug the cable from iPod or spec. dock into the module.

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 45 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. It may also read "Detached"
3. To enable text, simply press button #6 on your radio and **wait a few 20 seconds**.
4. The radio will automatically advance to track #1.

If your 5 has navigation, slowly advance to track 3. This will put the text on the gauge cluster below the speedo/tachometer. This prevents the navigation and the Dice fighting for screen space.

If your 5 does not have navigation, slowly advance up to track 3, possibly track 4 and the text will appear directly on the center MID. Once you've done this and the text is in the appropriate location, press button #1 on your radio. This will allow the Dice to sync with the BMW system.

5. **If your Dice module seems to be acting up at this point, as in the text functions aren't working properly or you are unable to activate the text, head back to the trunk and UNPLUG the 3 pin connector for approximately 1 minute. This will reset the iPod. Plug it back in and start over at step 1.**
6. Again, **before** you attempt to control the iPod, **give it a few seconds** to sync up with the communication system in your BMW.

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.

If you experience the Dice Module not operating correctly upon the initial installation, head to the trunk and unplug the 3 pin connector for approximately 1 minute.

This will resolve 99% of all issues that may have arisen. Plug the connector back in and reattempt the initialization process.

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 its 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.