

**DICE iPod Integration Kit Installation Instructions for BMW Z4
Roadster 03+ with Analog DSP (E85)**

**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. We also recommend disconnecting your negative battery terminal.

- 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. This software is available through the iTunes website. Before you attempt to install your Dice Module, make **SURE** that your iPod has the latest firmware installed.



BAVARIAN SOUNDWERKS

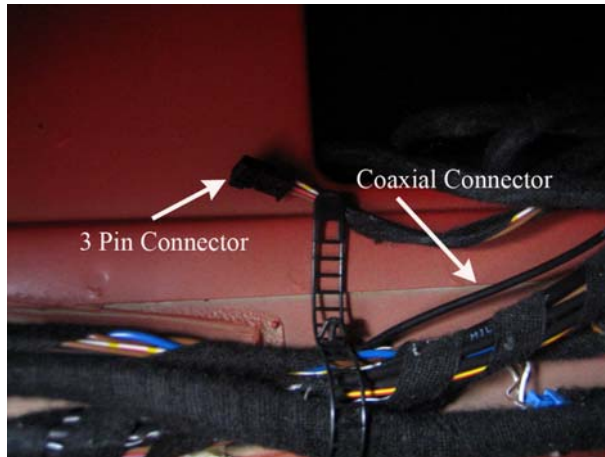
- Also, it is **IMPERATIVE** that your iPod has a complete charge before you attempt to use it for the first time with your Dice module.
- Again, much like your computer, the Dice module requires a thorough initial programming sequence, as well as a great amount of **PATIENCE** during this initialization. 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.
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Tools Required for Installation:

- Panel Removal Tool
- Torx T20 (Ashtray Assembly Removal – Spec.Dock only)
- Wire Cutters/Crimpers
- Metric Allen Key Set

Accessing Factory CD Changer Wiring

- 1) **The wires we're looking for are located behind the carpeted panel on the rear wall of the trunk, closest to the cabin.** To remove the carpeted panel, remove the trunk floor mat first by lifting it out of the vehicle. We'll only be prying the carpeted panel up just enough to give us access to the area where the CD Changer connections reside.
- 2) **Both the 3 pin and Digital Coaxial connector will be found tucked into the rectangular entrance into the cabin shown below.** They can be tucked quite tightly in here, so you may have to fish around a bit to release them. They may be found together or the coaxial cable may be hanging along the bottom edge of the wiring harness. We typically don't use the coaxial connection, as it isn't always routed back to the factory amplifier. See the steps below **and if your Z4 has the coaxial connection plugged into the factory amplifier already**, you can use it in lieu of the supplied coaxial cable.



Making the Appropriate Connections for your iPod

1. Having located the BMW CD Changer 3 pin connector, let's begin making our connections for the DSP adapter. **Do not plug the 3 pin connector in at this point.**
2. **The 3 pin plug on the BMW side of the connection will have a brown wire on one of the outside pins. If the brown wire is located in the center pin, you have the wrong 3 pin connector.**



DSP Adapter Connections:

To make our DSP adapter connections, we'll need to first locate our factory amplifier, where we will make our power and audio connections for the DSP adapter. We will need to remove the factory amplifier as well by removing the 4mm bolt that secures it to the floor.

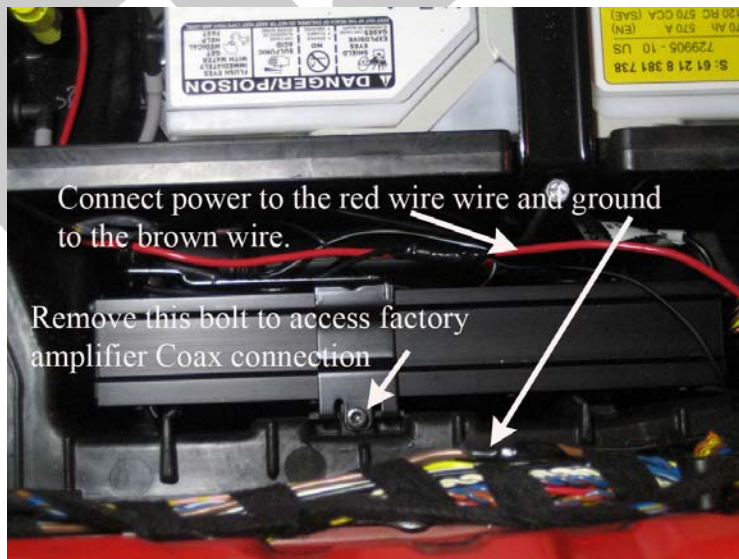


3. Now, to remove the factory amplifier from its location, you have to pry upward, somewhat aggressively. We need to gain access to the coaxial connection on the side of the amplifier.



4. Now, we need to plug the coaxial cable from the DSP adapter to the factory amplifier. Make sure the coaxial connections snaps **tightly** into both the DSP adapter and the factory amplifier!
5. Now, we need to power the DSP adapter. As you can see, the adapter has a power connection with a Black wire running alongside a Black/White wire. We need to connect these to the appropriate wires in the factory amplifier harness.
Black Wire = Negative (Ground) connects to the large brown wire in the amplifier harness, or you can ground the unit directly to your battery.

Black/White Wire = Positive (Power) connects to the large Red Wire running alongside the top of the amplifier harness.



- To make the connections, you can use the included T-Taps or feel free to solder your connections. The T-Taps are easiest, but sometimes can be tricky to install correctly. To use the T-Taps, strip back a small area of the insulation all the way around the wire. Using a pair of pliers, tightly crimp the connector onto the wire. You can then attach the included red male spade terminals to the Black and Black/White wires and slide them onto the yellow T-Taps.
- Now, we need to route the RCA to 6 pin adapter up from the DSP adapter to the area of the factory 3 pin connection. We use black duct tape to keep it "pretty". You may need to unwind the tape from around the 15ft Dice 3pin 6pin cable and separate the 3 and 6 pin connectors. See the photo below.

On the next page you'll see a basic wiring guide for the DSP adapter:



Continuing on with the Installation:

- When installing a Dice module in your Z4, you *must have* the trunk cable plugged into the Dice module BEFORE you plug the BMW 3 pin connector into the trunk cable.**
This means the 12 pin connector on the other end of the trunk cable ***must be plugged into the Dice module along with the cable going to the iPod before the BMW 3 pin connector is plugged into the 3 pin connector on the trunk cable.*** The iPod itself does not have to be plugged in at this point.
- With regards to the Dice iPod cable, we'll now need to route it towards the front of the vehicle. To do this, we'll first want to head up into the cabin and slide the passenger seat all the way forward, exposing the factory subwoofer grille.**
- Remove the grille carefully by prying on its outer edges. Once any portion of the grill is free, use your hands to remove the rest of it. We'll be looking for the pass through to the trunk, which is located all the way against the outermost edge of the car. See photo below:



11. Once you've located the pass through, you can route the cable along the bottom edge of the panel as show by the arrows on the previous page. This will bring the cable into the center console area, and allow you to route the cable either up towards the front of the car or into the glove box area between the two seats. See photo on next page.

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.
3. If your 3 Series is a late '00 model or newer, your radio is capable of supporting the text information from your iPod. To enable text, simply press button #6 on your radio and **wait approximately 45 seconds**.
4. The radio will automatically advance to track #1, which is where we want it to be. Once text appears, press button #1 on your radio. However, **If your 3 Series has navigation, advance the radio to track 6, and once text appears, press button #1.** 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.