



The unofficial

BIMMERCODE User Guide

Toyota GR Supra A90 2019 +

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Special thanks to the supramkv.com forum users for your inputs

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Document Revision

Date	Doc Rev	BIMMERCode FW Rev	Description
2020 Sept 09	1.0.0	3.6.1	Initial DRAFT Release.
2022 August 30	2.0.0	4.1 (14.11.3)	Updates to BIMMERCode FW Rev 4.1 (build 14.11.3) and ODBLink MX+ FW Rev 5.6.24. See Appendix 1.0 for change log.

1.0 Scope

This document is a user guide for the [BIMMERCode](#) app on the Toyota GR Supra. This document is a living repository of information based on the shared knowledge base from the users of the [supramkv.com](#) forum. The current release (i.e. version 2.0) of this document is the updated document based on my experiences and what I have gathered the forums. I will continue to update this document as new features become available on new software releases and integrate new input from other forum members.

Disclaimer: This document is NOT an official [BIMMERCode](#) document. The information provided in this User Guide is based on my experience and input from other forums members. Your experience may differ. **Please use at your own risk.**

1.0.1 BIMMERCode device requirements

[BIMMERCode](#) works with all iOS devices running iOS 9.3 or higher and all Android devices running Android 4.4 or higher. This document was updated using Apple iPhone XS Max on IOS is v15.6.1.

1.0.2. BIMMERCode Target car

[BIMMERCode](#) app supports the Toyota GR Supra manufactured 2019 onwards. You will need to purchase the full version of the [BIMMERCode](#) app to modify the electronic control unit's configuration. [BIMMERCode](#) app has two target car options in settings which will work on the Toyota GR Supra 2019 - current:

1. **BMW → Z4 → G29 (from 2018) [Recommended]**
2. Toyota → Supra → J29, A90 (from 2019) [**Not Recommended**]

Use **BMW Z4 - G29** over the Toyota Supra A90 option because the BMW Z4 provides access to more electronic control units (ECUs). The developers at [BIMMERCode](#) have added access to more electronic control units (ECUs) with the release of [BIMMERCode](#) v14.1, which adds access to two new ECUs and adds new options. Here is a comparison between the two options (note: I have kept the initial release version for comparison).

Table 1-1 Car vs Electronic Control Unit access on [BIMMERCode](#) version v4.1 (4.11.3) with ODBLink MX+

Electronic Control Units	v4.1 (14.11.3)	v4.1 (14.11.3)	v3.6.1	v3.6.1
	BMW Z4 G29	Toyota Supra A90	BMW Z4 G29	Toyota Supra A90
Active Sound Design (ASD_01)	✓	✓	✓	✓
Adv Crash Safety Module (ACSM_5)	✓	n/a	✓	n/a
Air Conditioning (IHKA_PRO2)	✓	✓	✓	✓
Body Domain Controller (BDC)	✓	n/a	✓	n/a
Engine Control Unit (DME)	✓	✓	✓	✓
Headunit (HU_NBT_EVO)	✓	✓	✓	✓
Instrument Cluster (DKOMBI2)	✓	n/a	✓	n/a
Roof Function Center (FZD_08)	✓	n/a	n/a	n/a
Seat Module Driver (CFAS_S15)	✓	n/a	n/a	n/a

1.1 Supported coding options

The available coding options depend on the car and the optional extras. A list of the supported coding options is listed in the following sections. **Please note that the coding options require specific control units to be present in the car and that some control units in newer G Series cars are only accessible with specific OBD adapters.** It is possible to check the available control units and options for your car using one of the supported OBD adapters and the free version of the app.

1.2 ODB2 adapter

To connect to your car using the [BIMMERCode](#) app, you will need to purchase one of the supported OBD2 adapters. Note that some of the ODB2 adapters do not provide access to all of the electronic control units. This guide was created using the ODBLink MX+ adapter (Model MX201). The table below lists the supported adapters that have been verified to work. I will update the table with the input received from other forum members. Some of the ODB2 adapters (ENET) may require different cables and adapters.

The table is based on the 2019-2020 Toyota GR Supra A90. The 2021 Toyota GR Supra A91 may or may not use the same electronic control units. [I am looking for input from other users of other ODB2 adapters and which electronic control units are visible to fill out this table.](#)

1.2.1 OBDLink adapters

The most popular ODB2 adapters used with BIMMERCode are from OBDLink. The two popular adapters are the MX+ and CX from OBDLink.

ODBLink's flagship and most expensive adapter is the MX+ which was released in 2018. The MX+ implements the highest performance processor in their product line and supports Bluetooth v3.0. Since the MX+ supports the ODB2 (i.e. United States) and international protocols (i.e. EOBD, JOBD, and other international variants of ODB2), it supports the most vehicles of OBDLink's products. For a list of cars supported, see URL:

https://redirect.viglink.com/?format=go&jsonp=vglnk_165718250263214&key=fe0dc93467f279b69971c287c26cd0e8&libId=5ariax201037v37000DLbps9gcuj&loc=https%3A%2F%2Fwww.thedrive.com%2Fgear%2F42015%2Fobdlink-mx-review&v=1&out=https%3A%2F%2F494382-1562282-raikfcquaxqncofqfm.stackpathdns.com%2Fwp-content%2Fuploads%2F2020%2F09%2Foem-specific_coverage.pdf&ref=https%3A%2F%2Fwww.google.com%2F&title=ODBLink%20MX%2B%20Review%20%7C%20The%20Drive&txt=manufacturer-specific%20advanced%20diagnostics%20support%20PDF%20document

ODBLink's newest and cost sensitive adapter is the CX which was released in September 2020. The CX implements a lighter processor and Bluetooth v5.1BLE (i.e. newer standard which supports a higher data rate). The CX is a focused product targeted at the BMW/Mini/Toyota vehicles using BIMMERCode and BIMMERLink at a competitive price. The CX only supports the ODB2 protocol. Although the CX supports the latest Bluetooth revision, it will not take full advantage of the higher data rate to speed up ODB programming time due to the lighter processor. The MX+ is still the flagship programmer.

Table 1-2 iOS ODB Adapters – BMW Z4 (G29 from 2018) on BIMMERCode version 4.1 (12440) – 14.11.3

ODB2 Adapter	FW ver	Electronic Control Units									
		Active Sound Design (ASD_01)	Adv Crash Safety Module (ACSM_5)	Air Conditioning (IHKA_PRO2)	Body Domain Controller (BDC)	Engine Control Unit (DME)	Headunit (HU_NBT_EVO)	Instrument Cluster (DKOMBI2)	Roof Function Center (FZD_08)	Seat Module Driver (CFAS_S15)	
ODBLink MX+ Bluetooth	V5.6.24	✓	✓	✓	✓	✓	✓	✓	✓	✓	
ODBLink CX Bluetooth		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Veepeak ODB Check BLE Bluetooth											
Veepeak ODB Check BLE+ Bluetooth											
UniCarScan UCSI-2000/2100 Bluetooth											
MHD ENET Wi-Fi											
BMDiag ENET Wi-Fi											
modBMW ENET Wi-Fi											
Kies ENET Wi-Fi											
ENET cable + Enet adapter											
vLinker BM+ Bluetooth											
vLinker MC+ Bluetooth											
vLinker MCWi-Fi											
Thor Wi-Fi											

Notes:

1. ODBLink MX+ Bluetooth information is from StacyOz on a MY20-A90 (Build date).

Table 1-3 Android ODB2 Adapters – BMW Z4 (G29 from 2018) on BIMMERCode version 4.1 (12440) – 14.11.3

ODB2 Adapter	FW ver	Electronic Control Units									
		Active Sound Design (ASD_01)	Adv Crash Safety Module (ACSM_5)	Air Conditioning (IHKA_PRO2)	Body Domain Controller (BDC)	Engine Control Unit (DME)	Headunit (HU_NBT_EVO)	Instrument Cluster (DKOMBI2)	Roof Function Center (FZD_08)	Seat Module Driver (CFAS_S15)	
ODBLink MX+ Bluetooth											
ODBLink CX Bluetooth											
ODBLink LX Bluetooth											
ODBLink SX											
ODBLink EX											
Veepeak ODB Check BLE Bluetooth	??	√	√	√	n/a	√	√	√	n/a		
Veepeak ODB Check BLE+ Bluetooth											
UniCarScan UCSI-2000 Bluetooth											
MHD ENET Wi-Fi											
MHD Wi-Fi											
BMDiag ENET Wi-Fi											
modBMW ENET Wi-Fi											
ENET cable + Enet adapter											
THOR Wi-Fi											
vLinker MC Bluetooth											
DCAN USB cable											

Notes:

1. Veepeak ODB Check BLE Bluetooth verification was taken from 30MilesOffshore's Veepeak thread.
Need to confirm the Veepeak FW version from 30MilesOffshore.

1.3 The Brake Recall

The NHTSA Safety Recall 21TA04 for 2020-2021 Toyota GR Supra should be applied to your car to resolve a braking issue which affects the GR Supra as well as many BMWs. The recall updates the engine management software to prevent damage to your oil/vacuum pump and cause loss in brake assist function. There is a lot of pushback from the "tuner" community against applying the recall (i.e. especially the femto unlock group). Ultimately, this recall may become mandatory by your state, insurance provider, and/or Toyota/BMW. Failure to apply this recall could result in denial of insurance claim from an accident, refusal to insure, etc..

I decided to get the recall applied. After getting the car back, I found that the recall reprogrammed all of my ECUs and wiped out my previous BIMMERCode mods. The v2.0..0 update to this guide documents the changes due to the BIMMERCode FW update and programming/ECU changes due to the updated ECU firmware due to this RECALL.

NHTSA Safety Recall Bulletin URL:

<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiv7NqTqeL4AhWGD0QIHfSFAS0QFnoECA8QAw&url=https%3A%2F%2Fstatic.nhtsa.gov%2Fodi%2Frc%2F2021%2FRCMN-21V598-6066.pdf&usq=AOvVaw34c6QpmEl1EO0EurEX-8hA>

2.0 Quick Start Guide for Toyota GR Supra BIMMERCode programming

These procedures are written targeting an [iOS device](#) using [ODBLink MX+](#) (firmware version 5.6.24) ODB2 adapter. This section was taken from [BIMMERCode](#) manual with added details for clarification.

2.1 Things you need before programming

Before starting, download the following apps onto your iOS or Android device:

1. Get the ODBLink app
2. Get the [BIMMERCode](#) app (free)
3. Upgrade [BIMMERCode](#) app to full version (~\$30).

Purchase one of the recommended ODB2 adapters. I am using the ODBLink MX+ ODB2 adapter.

2.2 Prepare the car:

1. OPTIONAL: I recommend to connect a battery charger to the car to insure that the battery is not drained/dies for long programming sessions. Connect the charger to the jump terminals in the engine compartment.
2. Make sure that the car is in PARK and that the parking brake is on.
3. Put on seatbelt on to prevent the vehicle's iDrive from shutting down to save power after wait timer.
4. Start the car in Diagnostic mode (i.e. **press start button quickly 3 times w/o touching the brakes**). The instrument cluster should display "Diagnostic mode" status on the Dash screen (bottom lower right side).
5. Make sure that all electrical accessories in the car are turned off (e.g. heater, interior/exterior lights, radio, etc.) to decrease battery drain during programming.
6. Power down or disconnect any third-party hardware installed in the car (rear view camera, radar detector, etc.).
7. Disconnect the iOS device in the iDrive settings in the car to disable Car Play, etc..
[\[iDrive\] COM → Manage mobile devices → Select the device → Delete device](#)
8. On your iOS device, disconnect any additional Bluetooth connections to other devices (e.g. Bluetooth headphones, etc.).
9. Keep the distance between the iOS device and the ODBLink MX+ adapter as short as possible.
10. Plug in the ODB2 adapter (ODBLink MX+) into the OBD port on the driver side (footwell).

2.3 Prepare iOS device:

Plug the iOS device into a USB power source to ensure that the iOS device does not shutdown during programming.

2.3.1 Connect the iPhone to the ODB2 adapter (ODBLink MX+)

Configure the iOS device for connection to the ODBLink MX+ adapter.

1. Enable the Airplane mode on the iOS device.
[\[iOS\]: Settings → Enable Airplane Mode](#)
2. Disable CarPlay in the iOS settings
[\[iOS\]: Settings → General → CarPlay → 'Toyota xxxxx' → Disable](#)
3. Turn on Bluetooth on the iOS device.
[\[iOS\]: Settings → Bluetooth → Enable](#)
4. Turn on Wi-Fi on the iOS device. Note, Wi-Fi is enabled to check for ODBLink MX+ firmware updates.
[\[iOS\]: Settings → Wi-Fi → Enable](#)

2.3.2 Pairing iOS device/apps to ODBLink MX+ adapter

1. For Bluetooth, put the ODB2 adapter (ODBLink MX+) into Bluetooth search mode by pressing the Bluetooth search button on the adapter. The Bluetooth LED will start blinking when the adapter is in Bluetooth search mode.
2. Pair the iOS device with the ODB2 adapter (ODBLink MX+).
[\[iOS\]: Setting → Bluetooth → ODBLink MX+ → Connect](#)
3. Configure ODBLink app on the iOS device.
 - a) Launch the ODBLink app and set Communication Type to Bluetooth
[\[ODBLink\]: Settings → Preferences → Communication → Bluetooth](#)
 - b) Tap [Connect] on the ODBLink app main menu.
The app will establish a connection with ODBLINK MX+ adapter, detect which OBD-II protocol your vehicle uses, and read the cars VIN and ECU registers. Once the connection is established, the **'BT'** LED will turn on solid.

2.4 Update ODB2 adapter (ODBLink MX+) firmware

Before proceeding to the [BIMMERCode](#) programming, insure that the ODB2 adapter firmware is updated to the latest version.

1. Launch the ODBLink app. Once connected, on the ODBLink app, check for a firmware update.
[ODBLink] Setting → Firmware Updates
2. If there is a firmware update, do the following;
 - a) Select [Firmware Updates] to update the ODB2 adapter to the latest firmware. Wait until the firmware update is completed before moving to the next step.
3. **Exit the ODBLink app.** The ODB adapter cannot connect to the [BIMMERCode](#) app while the ODBLink app is connected.
4. Turn off Wi-Fi on the iOS device.
[iOS]: Settings → Wi-Fi → Disable

2.5 Launch the [BIMMERCode](#) app

1. Start the [BIMMERCode](#) app on the iOS device.
2. Configure [BIMMERCode](#) app
 - a) Select the target ODB2 adapter.
[BIMMERCode] Settings → Adapter → ODBLink MX+
 - b) Select back arrow to return to the Settings Menu
 - c) Select the supported car.
[BIMMERCode] Settings → Supported cars → BMW → Z4 → G29 From 2018
Note: Using the car = **BMW Z4 G29** provides access to more control units. This document describes the [BIMMERCode](#) options in that configuration. I have not had any issues using this configuration.
If you are uncomfortable using that setting, you can select the car = **Toyota GR Supra**, but you will **not have access to all of the control units and options available on the BMW Z4.**
[BIMMERCode] Settings → Supported cars → Toyota → Supra → J29, A90 From 2019".
 - d) Select [Done] to return to the Settings Menu
 - e) Select [Done] to return to Start Screen
3. Tap [Connect] on the Start Screen.
The [BIMMERCode](#) app will start communication with the car's control units and read the configuration settings. This operation will take longer on the ODB2 Bluetooth or Wi-Fi adapters, then on the ODB2 Ethernet adapters. Once this process is completed, the available control units are displayed on the Main menu.
4. You are now ready to begin coding!

2.6. Coding (Modifying the Electronic Control Units' configuration)

The main menu of the [BIMMERCode](#) app displays the visible Electronic Control Units (ECUs) available to program. The available ECUs will differ depending on the ODB2 adapter used and perhaps the target vehicle selected. [BIMMERCode](#) app has two different modes for each control unit; BASIC and EXPERT. On some control units, the EXPERT mode is not available.

- The "BASIC mode" provides access to popular coding options. Most changes should be made in this mode.
- The "EXPERT mode" is for experienced users and provides access to the low-level programming options for the respective control unit. Unless you have special knowledge, this mode is NOT recommended for novices. There is not a lot of information available on the options in this mode.

2.6.1 Coding

1. Select the car make/model/version as described in the beginning of the Quick Start Guide and tap [Connect].
2. A list of all supported electronic control units is displayed on the main menu.
3. Select the desired electronic control unit from the main menu.
The [BIMMERCode](#) app will read the control unit's configuration data. This may take time due to the number of configurable options for that control unit.
4. After selecting a control unit, the [BIMMERCode](#) app will display the "BASIC Mode" menu for that control unit.
5. To access the EXPERT mode menu, select the [EXPERT mode] button at the bottom of the BASIC mode menu.
6. Make the desired changes for the selected control unit.
For beginners, I would recommend making only one change before coding. In this manner, you can verify that the change is desired. If the change is not desired, you can back the change out by restoring from the backup.
7. Tap [Code] to code the changes. **Exiting the target ECU's menu without coding loses all of the changes made.**

2.6.2 After coding errors

- After coding an ECU, the car may display errors. This is totally normal and the errors will disappear after a short period of time when you turn the ignition off and on again.
- Restart the car and verify the configuration changes.
- Depending on the ECU modified, you may have to set the time again and restore user defined settings through the car's iDrive interface.
- When coding the instrument cluster, the average consumption is reset and the remaining range may display an unusual value. This will normalize itself after some driving cycles.
- After coding the instrument cluster, the outside temperature may display an unusual value. This will normalize itself after some time.

2.6.3 Coding failure

If an error occurs during coding, please proceed as follows:

- Close the connection, restart the iOS device and the adapter (disconnect and reconnect).
- Open [BIMMERCode](#) and connect as described in the beginning of the Quick Start Guide. Please exactly follow these instructions in order to prevent external interference during coding and avoid problems.
- Select the specific control unit. This is marked with a red dot.
- Restore the previous coding data using a backup as described in the section Backups below.
- If coding fails continuously, please contact support. There is an option in the settings in the app named "Support request" to do so.

2.7 Backups

Every time the coding data is read from a electronic control unit a backup of the coding data is created automatically to restore the original coding data later or recover in case of an error.

2.7.1 Exporting backups

To have access to your backups after changing your iOS device, you should save them regularly. To export the backups to your Windows or Mac computer please follow the steps described in the appendix. The backups will be lost if you delete the app from your device, so please make sure to export and save them before deleting the app.

2.8 Restoring

1. Connect to the car as described in the beginning of this section.
2. Select an electronic control unit from the list.
3. Tap [Backups] and select a backup image from the list (the backups are sorted ascending by creation date).
To restore the original coding data you have to select the oldest backup in the list (last one).
To back out the last change, select the newest backup in the list (first one).
4. Tap [Done].
5. Tap [Code] to start the coding process.

3.0 Popular Toyota GR Supra BIMMERCode modifications:

This section lists popular settings found from my research. I have tested and verified the changes highlighted in **RED**. The other settings that I have not verified personally but were used by members from other threads or forums. **Note: DO NOT leave an ECU without selecting [CODE] or the changes will be lost. Multiple setting changes in an ECU can be grouped together before coding.**

BIMMERCode Vehicle configuration: BMW + Z4 + G29

Target Equipment: iOS device, ODBLink MX+, and BIMMERCode v3.6.1 app

1. **Screen Brightness → OLD.** [Verified-Highly Recommended]
This enables the screen brightness adjustment to work during daytime via the iDrive system settings. (i.e. to adjust screen brightness to full). This does not disable the instrument dimming wheel on the dash (lower left).
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3005 Display_PIP_CONFIG → DIM_VARIANT → **OLD**
 Main → HeadUnit (HU_NBT_EVO) + [CODE]
2. **Active Sound Design → Disable.** [Verified-Highly Recommended]
This disables the addition of fake exhaust sound (200Hz) through the vehicle sound system.
NOTE: This can also be accomplished by disconnecting the ASD output cable. (See Tada's MKV thread for instructions.)
 Main → Active Sound Design (ASD_01) → **Not active**
 Main → Active Sound Design (ASD_01) + [CODE]
3. **Auto Start/Stop Function Memory → Enable.** [Verified – Highly Recommended]
This enables the Auto Start/Stop function memory so the last state is preserved over shutdown/start-up.
 Main → Engine Control Unit (DME) → Auto Start/Stop Function Memory → **Active**
 Main → Engine Control Unit (DME) + [CODE]
4. **Start-up warning display → Disable.** [Verified]
This removes the warning message displayed when starting the car.
 Main → HeadUnit (HU_NBT_EVO) → Warning at start-up → **Not active**
 Main → HeadUnit (HU_NBT_EVO) + [CODE]
5. **Rear view camera warning → Disable.** [Verified]
This removes the warning message displayed when car is in reverse.
 Main → HeadUnit (HU_NBT_EVO) → Camera Warning → **Not active**
 Main → HeadUnit (HU_NBT_EVO) + [CODE]
6. **Seat belt reminder → Disable.** [Verified]
This removes the seat belt reminder for the driver and passenger.
 Main → Advanced Crash Safety Module (ACSM_5) → Seat belt reminder driver seat → **Not Active**
 Main → Advanced Crash Safety Module (ACMS_5) → Seat belt reminder passenger seat → **Not Active**
 Main → Advanced Crash Safety Module (ACMS_5) + [CODE]
7. **Window lifter interruption when opening a door → Disable.** [Verified]
This enables the window up/down control switch to work when the door is open.
 Main → Body Domain Controller (BDC) → Window lifter interrupt when opening a door → **Not Active**
 Main → Body Domain Controller (BDC) + [CODE]
8. **Video in Motion and Video via USB → Enable.** [Not Verified]
This allows the phone/USB stick video playback to be displayed on the iDrive screen.
NOTE: currently, this only works with **Android** phones. This does not work with iPhones
 Main → HeadUnit (HU_NBT_EVO) → Video in motion → **Active**
 Main → HeadUnit (HU_NBT_EVO) → Video via USB → **Active**
 Main → HeadUnit (HU_NBT_EVO) → Additional video codecs and formats → **Active**
 Main → HeadUnit (HU_NBT_EVO) + [CODE]
9. ~~**Display full text messages → Enable.** [SKIP - DOES NOT WORK for Supra]~~
~~*This enables the full phone text messages to be displayed on the iDrive screen.*~~

Main → HeadUnit (HU_NBT_EVO) → Display full text messages → **Active**
 Main → HeadUnit (HU_NBT_EVO) + [CODE]

10. Speedometer Display correct Speed (not ¾ mph faster). [Not Verified]

This removes the speed adjustment so actual speed is displayed on instrument cluster.

Note: this coding also removes the 263kph (163mph) maximum displayed speed setting.

Main → Instrument Cluster (DKOMBI2) + [Expert] → 3000 ANZENGE_KONFIGURATION → BC_V_KORREKTUR → **ohne_korrektur** (i.e. without correction)

Main → Instrument Cluster (DKOMBI2) + [CODE]

11. Mirrors Tilt → 30%. [Verified]

This changes the passenger mirror tilt when car is in reverse. This example changes the tilt (less aggressive) so you can see behind the car as well as the curb.

NOTE: the mirror auto curb monitor switch on the door must be in the ON position (i.e. towards the driver side).

Main → Body Domain Controller (BDC) → Automatic Mirror Tilt value → **30%**

Main → Body Domain Controller (BDC) → Automatic Mirror Tilt value → **30%**

Main → Body Domain Controller (BDC) + [CODE]

12. Maximum Volume for Radio on start-up → 30%. [Verified]

This sets the maximum iDrive audio volume on start-up

Main → HeadUnit (HU_NBT_EVO) → Maximum volume at start-up → **30%**

Main → HeadUnit (HU_NBT_EVO) + [CODE]

13. Start-up warning chime change → BMW warning chime. [Not Verified]

This configures/selects the iDrive start-up chime sound.

Main → HeadUnit (HU_NBT_EVO) → Warning Chime → **BMW Warning Chime**

Main → HeadUnit (HU_NBT_EVO) + [CODE]

14. Rearview camera zoom → Enable. [Not Verified]

This adds an option for rear view zoom on the iDrive screen when car is in reverse.

Main → HeadUnit (HU_NBT_EVO) → Rearview camera zoom → **Active**.

Main → HeadUnit (HU_NBT_EVO) + [CODE]

15. Driving Mode → Sport Mode. [Verified]

This changes the start-up default driving mode to Sports mode.

Main → Body Domain Controller (BDC) → Default Driving Mode → **Sport Individual**

Main → Body Domain Controller (BDC) + [CODE]

16. Startup Seatbelt reminder → Disable [Verified]

This removes the seat belt reminder when starting the car.

Main → Advanced Crash Safety Module (ACSM_5) → Initial seat belt reminder after start → **Not Active**

Main → Advanced Crash Safety Module (ACMS_5) + [CODE]

17. Auto Seat Heating → Disable. [Verified – From CarGuy]

This setting enables auto seat heating which turns on after buckling seat belts. This is from CarGuys thread. ☺

Main → Body Domain Controller (BDC) + [Expert] → 3142 PFLinLRE → LHZ_CCM_IFK → **Aktiv**

Main → Body Domain Controller (BDC) + [Expert] → 3450 OTHERS_1 → IFK_ENABLE → **ifk_alle_sitze**

Main → Body Domain Controller (BDC) + [CODE]

Main → Headunit (HU_NBT_EVO) + [Expert] → 3000 HMI → AKT_AUTO_SITZE_FRONT → **heizung**

Main → HeadUnit (HU_NBT_EVO) + [CODE]

Setting Heated Seat Temperature threshold. [Verified – From CarGuy]

This sets the seat temperature (backrest and bottom for driver and passenger seats).

Main → Body Domain Controller (BDC) + [Expert] → 3090 HcSeatHeating → TEMP_LEHNE_STUFE_1_FRONT → **37_grad**

Main → Body Domain Controller (BDC) + [Expert] → 3090 HcSeatHeating → TEMP_LEHNE_STUFE_2_FRONT → **42_grad**

Main → Body Domain Controller (BDC) + [Expert] → 3090 HcSeatHeating → TEMP_LEHNE_STUFE_3_FRONT → **50_grad**

Main → Body Domain Controller (BDC) + [Expert] → 3090 HcSeatHeating → TEMP_SITZ_STUFE_1_FRONT → **32_grad**

Main → Body Domain Controller (BDC) + [Expert] → 3090 HcSeatHeating → TEMP_SITZ_STUFE_2_FRONT → **37_grad**

Main → Body Domain Controller (BDC) + [Expert] → 3090 HcSeatHeating → TEMP_SITZ_STUFE_3_FRONT → 45_grad
 Main → Body Domain Controller (BDC) + [CODE]

18. Lap Timer → Enable. [Verified – From 30MilesOffshore]

Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3006 Navigation → M_LAPTIMER → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [CODE]

19. Stability Control Popup → Disable [Verified]

This setting removes the Traction Control Warning (i.e. Popup) when changing to dynamic mode.

Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → STABILITY_CONTROL_POPUP → Nicht_Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [CODE]

20. Add Sport Plus Mode driving mode [Verified-Highly Recommended]

This adds a new Sport Plus Mode driving mode options under engine and transmission (i.e. more aggressive throttle response & faster shifting).

Note: Through the iDrive menus, you must enable pop ups so you can select between Sport mode and Sport Plus when using the Sport button on the car.

Main → Body Domain Controller (BDC) + [Expert] → 3221 PfFesMaster → FesSportWorld Mode1 → SportExpert
 Main → Body Domain Controller (BDC) + [CODE]
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → FES_SPORT_EXPERT → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [CODE]

21. Lock/UnLock Chirp → Disable [Not Verified]

This setting disables the acoustic notification when Locking/UnLocking your car.

Main → HeadUnit (HU_NBT_EVO) → Checkbox acoustical lock confirmation → Nicht_Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [CODE]

22. Adjusting Rear view + side view mirrors auto dimming level [Not Verified – From 30MilesOffshore]

These setting adjust the auto dimming tint level for the rear view and side view mirrors at night.

Main → Body Domain Controller (BDC) + [Expert] → 3120 PfInternalMirror → ISP_HECKSCHEIBE → Dunkel

NOTE: This changes the light sensor to more sensitive for tinted windows.

Main → Body Domain Controller (BDC) + [Expert] → 3120 PfInternalMirror → CODDT_00_SCAL_DIM_ECR_LIN → CUSTOM VALUE → [20-39]

NOTE: This sets the dimming ratio for the side view mirrors. 39=max tint, 20=min tint

Main → Body Domain Controller (BDC) + [Expert] → 3120 PfInternalMirror → CODDT_01_SCAL_DIM_ECR_LIN → CUSTOM VALUE → [20-39]

NOTE: THIS sets the dimming ratio for the rear view mirror. 39=max tint, 20=min tint.

Main → Body Domain Controller (BDC) + [CODE]

23. Coding AUX Audio → Enable. [Not Verified]

This adds the AUX audio input as an audio source for use with MMI Prime for Android Auto.

REF: Thread - Coding AUX Audio with Bimmercode (<https://www.supramkv.com/threads/coding-aux-audio-with-bimmercode.10978/>)

Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3000 HMI → CDMM_AUX_SIMPLE_1 → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [CODE]

24. Coding Digital speed in board computer → Active. [Not Verified]

This adds the digital speed on instrument cluster.

Main → Instrument Cluster (DKOMBI2) → Additional digital speed in speedometer → mph
 Main → Instrument Cluster (DKOMBI2) → Digital speed in board computer → Active
 Main → Instrument Cluster (DKOMBI2) + [CODE]

25. **Customize startup screen** [Verified]

This mod changes the startup screen. This example selects the “**///M**” logo.

Note: Updated - the “Christmas” option was removed in the latest BIMMERCode FW update.

Main → HeadUnit (HU_NBT_EVO) → Start animation → **M variant 1**

Main → HeadUnit (HU_NBT_EVO) + [CODE]

3.1 Quick BIMMERCode programming script (for experienced coders only)

BIMMERCode Vehicle: BMW + Z4 + G29. **Target Equipment:** iOS device, ODBLink MX+, and BIMMERCode v4.1 – 14.11.3 app

Active Sound Design (ASD_01)	
[2]	Main → Active Sound Design (ASD_01) → Not active
	Main → Active Sound Design (ASD_01) + [CODE]
Advanced Crash Safety Module (ACSM_5)	
[6]	Main → Advanced Crash Safety Module (ACSM_5) → Seat belt reminder driver seat → Not Active
[6]	Main → Advanced Crash Safety Module (ACMS_5) → Seat belt reminder passenger seat → Not Active
[16]	Main → Advanced Crash Safety Module (ACSM_5) → Initial seat belt reminder after start → Not Active
	Main → Advanced Crash Safety Module (ACMS_5) + [CODE]
Body Domain Controller (BDC)	
[7]	Main → Body Domain Controller (BDC) → Window lifter interrupt when opening a door → Not Active
[15]	Main → Body Domain Controller (BDC) → Default Driving Mode → Sport Individual
[11]	Main → Body Domain Controller (BDC) → Automatic Mirror Tilt value → 30%
[20]	Main → Body Domain Controller (BDC) + [Expert] → 3221 PfesMaster → FesSportWorld Mode1 → SportExpert
	Main → Body Domain Controller (BDC) + [CODE]
Engine Control Unit (DME)	
[3]	Main → Engine Control Unit (DME) → Auto Start/Stop Function Memory → Active
	Main → Engine Control Unit (DME) + [CODE]
HeadUnit (HU_NBT_EVO)	
[13]	Main → HeadUnit (HU_NBT_EVO) → Warning Chime → BMW Warning Chime
[12]	Main → HeadUnit (HU_NBT_EVO) → Maximum volume at start-up → 30%
[25]	Main → HeadUnit (HU_NBT_EVO) → Start animation → M variant 1
[4]	Main → HeadUnit (HU_NBT_EVO) → Warning at start-up → Not active
[5]	Main → HeadUnit (HU_NBT_EVO) → Camera Warning → Not active
[1]	Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3005 Display_PIP_CONFIG → DIM_VARIANT → OLD
[19]	Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → STABILITY_CONTROL_POPUP → Nicht_Aktiv
[20]	Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → FES_SPORT_EXPERT → Aktiv
	Main → HeadUnit (HU_NBT_EVO) + [CODE]
Instrument Cluster (DKOMBI2)	
[24]	Main → Instrument Cluster (DKOMBI2) → Additional digital speed in speedometer → mph
[24]	Main → Instrument Cluster (DKOMBI2) → Digital speed in board computer → Active
[10]	Main → Instrument Cluster (DKOMBI2) + [Expert] → 3000 ANZENGE_KONFIGURATION → BC_V_KORREKTUR → ohne_korrektur (i.e. without correction)
	Main → Instrument Cluster (DKOMBI2) + [CODE]

Notes:

1. **Screen Brightness:** This increases the screen brightness of the iDrive system screen.
2. **Active Sound Design:** This disables the addition of fake exhaust sound through the sound system.
3. **Auto Start/Stop Function Memory:** This enables the Auto Start/Stop function memory.
4. **Start-up warning display:** This removes the warning message displayed when starting the car.
5. **Rear view camera warning:** This removes the warning message displayed when car is in reverse.
6. **Seat belt reminder:** This removes the seat belt reminder for the driver and passenger.
7. **Window lifter interruption when door is open:** This enables the window switch when the door is open.
10. **Speedometer Display correct Speed:** This removes the speed adjustment.
11. **Mirrors Tilt:** This changes the mirror tilt to 30% when car is in reverse.
12. **Maximum Volume for Radio on start-up:** This sets the maximum iDrive audio volume to 30% on start-up.
13. **Start-up warning chime:** This configures the iDrive start-up chime sound to the BMW warning chime.
15. **Start-up Driving Mode:** This changes the start-up default driving mode to Sports mode.
16. **Startup Seatbelt reminder:** This removes the seat belt reminder when starting the car.
19. **Stability Control Popup:** This setting removes the Traction Control Warning Popup when in dynamic mode.
20. **Add Sport Plus Mode driving mode:** This adds a Sport Plus Mode driving mode.
24. **Digital speed in board computer:** This adds the digital speed on instrument cluster.
25. **Customize startup screen:** This changes the startup screen to the “///M” logo.

3.2 Discussion on Popular BMW BIMMERCode modifications for Toyota GR Supra:

This section analyzes popular BMW coding mods and how they relate to the Toyota GR Supra

1. Brake Force Display → **Not available**

This setting flashes the rear tail lights when braking and the flash rate is based on how hard you are braking.
This is a popular requested mod available on BMWs. The referenced or corresponding ECUs options are **not available** on the GR Supra. Hopefully it will be added in future updates.

The BMW F30 coding reference: <https://www.youtube.com/watch?v=MWjD7Zrb6Yk>

BMW F30 Coding steps:

Main → Front Electronic Module → Brake Force Display Type → Flashing
Main → Front Electronic Module → Brake Force Display activation speed → 5km/h
Main → Front Electronic Module → Brake Force Display activation brake force → Weak braking (5m/s²)
Main → Front Electronic Module + [CODE]
Main → Rear Electronic Module → Brake Force Display flashing frequency → 3 times per second
Main → Rear Electronic Module + [Expert] → 3062 LceLampMapping 1 → MAPPING_BREAKFORCED_L_OUTPUT → bl_l
Main → Rear Electronic Module + [Expert] → 3062 LceLampMapping 1 → MAPPING_BREAKFORCED_R_OUTPUT → bl_r
Main → Rear Electronic Module + [CODE]

Note: the Expert mode steps are needed to enable the BFD mode.

Translation to BMW Z4 G29 (i.e. Toyota GR Supra) Coding steps (the missing ECU/options are in red):

Main → Body Domain Controller (BDC) → **Brake Force Display Type** → **Flashing**
Main → Body Domain Controller (BDC) → Brake Force Display activation speed → 5km/h
Main → Body Domain Controller (BDC) → Brake Force Display activation brake force → Weak braking (5m/s²)
Main → Body Domain Controller (BDC) + [CODE]
Main → **Rear Electronic Module** → **Brake Force Display flashing frequency** → 3 times per second
Main → **Rear Electronic Module** + [Expert] → 3062 LceLampMapping 1 → MAPPING_BREAKFORCED_L_OUTPUT → bl_l
Main → **Rear Electronic Module** + [Expert] → 3062 LceLampMapping 1 → MAPPING_BREAKFORCED_R_OUTPUT → bl_r
Main → **Rear Electronic Module** + [CODE]

Note: access to the Rear Electronic Module (or equivalent) is not provided for the Toyota GR Supra or thru BMW Z4 G29.

2. ECO Mode → [researching the EXPERT Mode menu paths]

ECO Mode mod was posted in a thread from rotary heart (REF URL: <https://www.supramkv.com/threads/coding-eco-mode.13482/>). Although he verifies that this mod works, the EXPERT mode menu path was not provided, as he found the settings through the search tool.

ECO Mode → [NOT Verified – from rotary heart]

This mod adds ECO driving mode for those who daily.

Notes: The only way to access this driving mode is to change the default driving mode to ECO. If you change the driving mode to Normal or Sport using the counsole switch, you will have to stop/park, turn the car off, and restart the car.

Main → Body Domain Controller (BDC) → Default driving mode → ECO PRO INDIVIDUAL
Main → Body Domain Controller (BDC) + [Expert] → 3221 PfFesMaster → FesPiaPortableComfortIndividual → **aktiv**
Main → Body Domain Controller (BDC) + [Expert] → 3221 PfFesMaster → FesPiaDefaultEcoWorldMode → **EcoProPlus**
Main → Body Domain Controller (BDC) + [Expert] → 3221 PfFesMaster → FesEcoWorldMode2 → **EcoProIndividual**
Main → Body Domain Controller (BDC) + [Expert] → 3221 PfFesMaster → FesEcoWorldMode1 → **EcoProPlus**
Main → Body Domain Controller (BDC) + [CODE]

Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_MODE → **Aktiv**
Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_PRO_ROUTE_ALPINE → **Aktiv**
Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_ROUTE → **Aktiv**
Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_ROUTE_TEXT → **Aktiv**

Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_TIPPS → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_TIPPS_ONEPADDLEDRIIVE → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → ECO_TIPS_LAYOUT_NEW → Aktiv

 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → FES_ECO_BASE → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → FES_ECO_PLUS → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → 3008 FES → FES_ECO_CUSTOM → Aktiv

 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_AUX_ON_OFF → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_ATTENUATIONCOMFPLUS → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_CID_TIPPS → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_LIGHT_SIGHT → licht_und_sicht
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_MSA → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_SAILING → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_SEATHEATING → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_VZA → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_MODE_CONF → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ERFS_ECO_BEALDUNG → erfs_eco

 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → KEY_COMFORT_OPENING → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → KEY_COMFORT_COOLING → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → KEY_COMFORT_HOMELIGHT → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → KEY_COMFORT_TAILGATE → Aktiv
 Main → HeadUnit (HU_NBT_EVO) + [Expert] → ??? → ECO_CONF_STEERING_COMFORT → Aktiv

 Main → HeadUnit (HU_NBT_EVO) + [CODE]

Notes:

Once these mods are coded, vvvia iDrive screen, go to Vehicle settings → Sport mode button → Configure ECO_INDIVIDUAL to customize the ECO mode settings (i.e. steering, damping, ECO tips, etc.).

4.0 BIMMERCode Supported coding options BIMMERCode v4.1 (12440) – build 14.11.3

Car = BMW Z4 (G29 from 2018)

This section describes the BIMMERCode menus and BASIC mode programming options. The options in **bold** are the default values from the factory. The first level EXPERT mode settings are listed, but not the options.

4.1 Main Menu

The BIMMERCode main menu lists the accessible electronic control units. The latest firmware update adds 2 ECUs.

- Active Sound Design (ASD_01)
- Advanced Crash Safety Module (ACSM_5)
- Air Conditioning (IHKA_PRO2)
- Body Domain Controller (BDC)
- Engine Control Unit (DME)
- Headunit (HU_NBT_EVO)
- Instrument Cluster (DKOMBI2)
- Roof Function Center (FZD_08)
- Seat Module Driver (CFAS_S15)

4.1.1 Active Sound Design (ASD_01)

4.1.1.1 ASDU - BASIC MODE

- Active Sound Design deactivation - *Activate/deactivate the Active Sound Design (exhaust sound through the sound system).*
→ [Unassigned value/Deactivated]

4.1.1.2 ASDU - EXPERT MODE

- 3000 ASD-Configuration
 - Model Range → [F001, F002, F006, F010, F011, F012, F013, F015, F016, F016 with N63, **F020/F021**, F020 with B58, F021 with B58, F022, F022withB46B48, F022withB58, F023, F023withB46B48B58, F030, F031, F032, F033, F034, F036, F039, F040, F044, F054, F054 AWD, F054 JCW, F054 with B47, F055, F056, F056 with B48, F057, F060, F060 AWD, F060 JCW, F060 JCW T1, F060 with B46M1, F060 with B46M1 AWD, F060 with B47, F080, F082, F083, F085, F086, F090, F097, F098, F22 with N55, UNKNOWN_51, UNKNOWN_52, UNKNOWN_53, UNKNOWN_54, UNKNOWN_55, UNKNOWN_56, UNKNOWN_57, UNKNOWN_58, F87, F87withS55, UNKNOWN_61, G001, G001 PHEV, G002, G002 with B58, G005, G007, G011, G012, G012 with N74, G014, G015, G01G02Alpina, G020, G021, G029, G029 with B58, UNKNOWN_78, G030, G030 AlpinaB5, G030 AlpinaD5, G030 AlpinaB58, G031, G031 AlpinaB5, G031 AlpinaD5, G031 AlpinaB58, UNKNOWN_87, UNKNOWN_88, J029, J029 with B58, UNKNOWN_91, RR05 BB, RR5, Custom value]
 - Engine → [B46A20, B46B20, B47C20, B48A20, B48B20, B57D30, N20B20, N26B20, N55B30, N57D30, N63B44, N74B66, **S55B30**, B57D30, B58B30, N20B20, N26B20, N55B30, N57D30, N63B44 N74B66, S55B30, S58B30, S63B44, XB1141, Custom value]
 - Audio Level → [Branded Hifi, Hifi, High End, Stereo, **TopHifi/Branded TopHifi**, Custom value]
 - Power Class → [Hybrid, KL, **ML**, ML1, OL, SL, TL, UNKNOWN_7, UL, Custom value]
 - Competition Packet → [CompetitionPaketandSportAGA, **No**, UNKNOWN_2, UNKNOWN_3, UNKNOWN_4, OPF, OPFandCompetitionPaket, OPFandCompetitionPaketandSportAGA, OPFandSportAGA, SportAGA, Yes, Custom value]
 - Country Variant → [China, ECE, Russia, **US**, Custom value]
 - Construction Stage → [3/12, before 07/13, later or equal 03/14, later or equal 03/17, later or equal 03/18, later or equal 03/19, later or equal 07/13, later or equal 07/14, later or equal 07/15, later or equal 07/6, later or equal 07/18, UNKNOWN_11, later or equal 11/14, **later or equal 11/15**, later or equal 11/17, UNKNOWN_15, UNKNOWN_16, Custom value]
 - Gear Shifting Sound → [**No**, Yes, Custom value]

4.1.2 Advanced Crash Safety Module (ACSM_5)

4.1.2.1 ACSMU - BASIC MODE

- PDC/Top View distance switch-off threshold - *The driven distance after the PDC is turned off automatically.*
→ [10m,20m,30m,40m,**50m**,100m,150m,200m,250m]
- PDC/Top View speed switch-off threshold - *The speed at which the PDC and the Top View is turned off automatically.*
→ [5km/h,10km/h,15km/h,20km/h,30km/h,**35km/h**,40km/h,50km/h]
- Rear view camera distance switch-off threshold - *The driven distance after the rear view camera is turned off automatically.*
→ [**10m**,20m,30m,40m,50m,100m,150m,200m,250m]
- Rear view camera speed switch-off threshold - *The speed at which the rear view camera is turned off automatically.*
→ [Unassigned value, 5km/h, 10km/h, 15km/h, 20km/h, 30km/h, 36km/h, 40km/h, 50km/h]
- Seatbelt reminder driver seat - *Activate/deactivate the seat belt indicator in the instrument cluster for the driver seat.*
→ [Unassigned value, Not active]
- Seatbelt reminder passenger seat - *Activate/deactivate the acoustic and visual seat belt reminder for passenger seat.*
→ [Unassigned value, Not active]
- Initial seat belt reminder after start - *Activate/deactivate the initial acoustic seat belt reminder after the car is started.*
→ [Active, Not active]

4.1.3 Air Conditioning (IHKA_PRO2)

4.1.3.1 ACU - BASIC MODE

- Air circulation setting memory - *Enable/disable storing of the air circulation setting. If this function is active, the last used air circulation setting will be restored during the next start of the car.*
→ [Active, Not active]
- Automatic Air Recirculation - *Enable/disable the Automatic Air Recirculation function.*
→ [Active, Not active]
- AC on in air recirculation mode - *Turn on the AC when activating the air recirculation mode.*
→ [Active, Not active]
- Apply AUTO setting to manual mode - *Apply the Auto settings when switching from the AUTO mode to the manual mode.*
→ [Not active, Active]

4.1.3.2 ACU - EXPERT MODE

- 3000 Variantenkodierung
- 3001 Funktionskodierung
- 3002 Standklimatisierung
- 3003 Funktionskodierung_HO
- 3004 Sitz
- 3005 Heckscheibenheizung
- 3006 Bedienfelder
- 3007 Lenkradheizung
- 3009 Debugging
- 300A TemporäreKodierungen
- 3010 TL_ID

4.1.4 Body Domain Controller (BDC)

4.1.4.1 BDCU - BASIC MODE

- Ambient lighting color contour - *The color of the ambient lighting in the upper part of the interior.*
→ [Bronze,Red,Orange,Yellow,Yellow-green,Green,Green-Cyan, Cyan,Cyan-blue,Blue,Blue-Magenta,Magenta,Magenta-Red,Unassigned value]

- Ambient lighting color - *The color of the ambient lighting in the lower part of the interior.*
→ [Bronze,Red,Orange,Yellow,Yellow-green,Green,Green-Cyan, Cyan,Cyan-blue,Blue,Blue-Magenta,Magenta,Magenta-Red,Unassigned value]
- Brake Force Display activation speed - *The speed at which the Brake Force Display is activated.*
→ [50km/h,40km/h,30km/h,20km/h,10km/h,**5km/h**]
- Brake Force Display activation brake force - *The brake deceleration at which the Brake Force Display is activated.*
→ [Hard braking – 8mps², Medium – 7mps², **Weak– 5mps²**]
- Horn Signal when locking the car with engine running - *Enable/disable the horn signal that sounds when locking the car with the engine running.*
→ [Active, Not active]
- Time until automatic lock - *The car is locked automatically again if it has been unlocked and no door has been opened within the set time.*
→ [10m,5m,**2m**,1m,30s,10s]
- Window lifter interruption when opening a door - *Enable/disable the window lifter interruption when a door is opened.*
→ [Active, Not active]
- Default Driving Mode - *Select the driving mode at start up of the car.*
→ [Comfort, Adaptive, ECO Pro, ECO Pro Individual, Sport, Sport Individual]
- Rain-light-sensor sensitivity - *The sensitivity of the rain-light -sensor that affects the automatic wiper and light activation.*
→ [Very sensitive, **Sensitive**, Normal, insensitive]
- Hazard warning signal after emergency braking - *The hazard warning signal is activated automatically after an emergency braking.*
→ [Not active, Active]
- Fog lights off with high beam - *Enable/disable the automatic switch-off of the fog lights when the high beam is turned on.*
→ [Active, Not active]
- Fog lights with parking lights - *Allows the fog lights to be turned on with parking lights.*
→ [Not active, Active]
- Exterior lighting switch-off allowed - *Allow the exterior lights to be turned off when the engine is running.*
→ [Active, Not Active]
- Automatic light control - *The lighting switch position where the automatic light control is active. To prevent the low beam to come on when the switch is set to "0", use the option "Active in position A".*
→ [Active in position A, Active in position A & D]
- Automatic mirror tilt - *Enable/disable the automatic mirror tilt for the right mirror when the reverse gear is engaged (the car must be equipped with power folding mirrors). Make sure the button in the door for selecting mirror is set to the driver side.*
→ [Active, Not active]
- Automatic mirror tilt value - *The tilt value of the right mirror, when the reverse gear is engaged.*
→ [100%, 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 10%, **Unassigned value**]
- Unfold mirrors with convenient opening - *Enable/disable the unfolding of the mirrors when using the convenient opening.*
→ [Active, Not active]
- Fold mirrors with convenient closing - *Enable/disable the folding of the mirrors when using the convenient closing.*
→ [Active, Not active]
- Front backrests temperature level 1 - *The temperature of the front backrests for seat heating level 1.*
→ [30C, 31C, **32C**, 33C, 34C, 35C]
- Front backrests temperature level 2 - *The temperature of the front backrests for seat heating level 2.*
→ [36C, **37C**, 38C, 39C, 40C, 41C]
- Front backrests temperature level 3 - *The temperature of the front backrests for seat heating level 3.*
→ [42C, 43C, 44C, **45C**, 46C, 47C]
- Front seats temperature level 1 - *The temperature of the front seats for seat heating level 1.*
→ [30C, 31C, 32C, 33C, 34C, 35C, **Unassigned value**]

- Front seats temperature level 2 - *The temperature of the front seats for seat heating level 2.*
→ [36C, 37C, 38C, 39C, 40C, **Unassigned value**]
- Front seats temperature level 3 - *The temperature of the front seats for seat heating level 3.*
→ [41C, 42C, 43C, 44C, 45C, 46C, 47C, 48C, 49C, 50C, **Unassigned value**]
- Rear backrests temperature level 1 - *The temperature of the rear backrests for seat heating level 1.*
→ [30C, 31C, **32C**, 33C, 34C, 35C]
- Rear backrests temperature level 2 - *The temperature of the rear backrests for seat heating level 2.*
→ [36C, **37C**, 38C, 39C, 40C, 41C]
- Rear backrests temperature level 3 - *The temperature of the rear backrests for seat heating level 3.*
→ [42C, 43C, 44C, **45C**, 46C, 47C]
- Rear seats temperature level 1 - *The temperature of the rear seats for seat heating level 1.*
→ [**30C**, 31C, 32C, 33C, 34C, 35C, 36C]
- Rear seats temperature level 2 - *The temperature of the rear seats for seat heating level 2.*
→ [**35C**, 36C, 37C, 38C, 39C, 40C]
- Rear seats temperature level 3 - *The temperature of the rear seats for seat heating level 3.*
→ [40C, 41C, 42C, **43C**, 44C, 45C, 46C, 47C, 48C, 49C]
- Boot lid opening delay - *The delay when opening the boot lid with the remote control. This value can be increased to prevent accidental openings of the boot lid.*
→ [No delay, 10s, 5s, 1s, **0.5s**]
- Open tailgate after unlock only - *The tailgate can only be opened after unlocking the car with the remote control. Note that the Tailgate has to be selected for the tailgate button in the settings in the iDrive system in the car.*
→ [**Not active**, Active]
- Welcome Light in darkness only - *Enable/disable the activation of the Welcome light in darkness only.*
→ [**Not active**, Active]

4.1.4.2 BDCU - EXPERT MODE

- 3000 ECU HW Configuration
- 3001 Energy Manager
- 3002 DemDtcinhibition
- 3003 ComAdapterNetworkDtc
- 3005 BffEPM
- 3006 BfLINTeilnetz
- 3020 TcMaster
- 3022 TcIntegration
- 3024 Batteryguard
- 3030 Key Manager
- 3031 CaIntegration
- 3040 VaMaster
- 3041 ClIntegration
- 3042 SmoParameterSet
- 3070 LceConfiguration
- 3072 LwrDriver
- 3073 LciMaster
- 3075 LceMaster
- 3080 WipeWashMaster
- 3090 HcSeatHeating
- 3091 HcArmrestHeating
- 30A0 AirConditioning
- 30C0 ElectricSteering WheelAdjust

- 30D0 RemoteControlMaster
- 30D1 RemoteControlIntegration
- 30D2 NfcRemoteControl
- 30D3 WcaWirelessChargingAbiage
- 30E0 Transponder
- 3100 PfHorn
- 3101 PfFuelLevelIndicator
- 3105 PfCoolantLevel
- 3110 PfExternalMirrorMaster
- 3111 PfLoadAreaCoverSunBlind
- 3120 PfInternalMirror
- 3130 PfRainLightSensor
- 3131 Beltassist
- 3140 PfLinSZL
- 3141 PfLinMFL
- 3142 PfLinLRE
- 3143 PfLinHOD
- 3144 Thermocupholder
- 3150 PfSzt
- 3190 PfSteeringWheelPaddles
- 3200 SfSdServiceData
- 3210 SfSvdVcmGlobal
- 3221 PfFesMaster
- 3420 PfSarahMaster
- 3422 PfHeightSensor
- 3423 PfBeAudio
- 3424 PfFesCoordInt
- 3425 PfBeMiko
- 3426 SvLin
- 3427 fEPM
- 3450 Others_1
- 3451 Others_2
- 3453 TL_ID
- 3500 FusiStart
- 3501 LceFuSiConfiguration
- 3502 WishWashFuSi
- 3503 FusiHwConfiguration
- 3504 SafeMech
- 3505 DG_3505
- 350A DG_350A
- 350B FusiEnd
- 350D TL_ID
- 3510 PwFunction
- 3512 PwDriverBlockFront
- 3513 PwDriverBlockRear
- 3516 TL_ID
- 3530 LaMaster1
- 3531 LaMaster2

- 3532 LaMaster3
- 3533 LaMaster4
- 3534 TL_ID
- 3600 LciBananaProfiles
- 3601 LicLciOutputChannels
- 3602 LicLciFeatures
- 3603 LicLciLogLamp2PhysLampData
- 3604LicLciLogLamp2PhysLampIndex
- 3605 LicLciNiveauOverrideIndex
- 3606 LicLciVersionData
- 3607 LicLciBrightnessFormulas
- 3608 LicLciBrightnessLibrary
- 3609 LicLciBusTopology
- 360ALicLciColorLibrary
- 360B LicLciColorOverrideData
- 360C LicLciColorOverrideIndex
- 360D LicLciColorProifiles
- 360E LicLciDirectlyConnectedDeviceData0
- 360F LciFunctionControl
- 3610 LicLciProtocol2Banana
- 3612 LicLciNiveauOverrideData0
- 3613 LicLciNiveauOverrideData1
- 3614 LicLciPhysLampData0
- 3615 LicLciPhysLampData1
- 3616 LicLciMostCommonConfiguredColors
- 3617 LicLciMostCommonConfiguredRamps
- 3618 LicLciRampOverridesIndex
- 3619 LicLciRampOverridesData0
- 361A LicLciScenarioLibraryIndex
- 361B LicLciScenarioLibraryData0
- 361C LicLciScenarioLibraryData1
- 361E LicLciInitialRampTimesFiLin
- 361F LicLciHyakudanaProfiles
- 3620 TL_ID
- 3645 CassConfigParameters
- 3646 CassDataBlock_0
- 3647 CassDataBlock_1
- 3648 CassDataBlock_2
- 3649 CassDataBlock_3
- 364A CassDataBlock_4
- 364B CassDataBlock_5
- 364C CassDataBlock_6
- 364D CassDataBlock_7
- 364E CassDataBlock_8
- 364F CassDataBlock_9
- 3650 TL_ID
- 3700 LceOutputChannels
- 3701 LceBananaProfiles

- 3702 LicFeatures
- 3703 LicNiveauOverrideIndex
- 3704 LicNiveauOverrideData0
- 3705 LicNiveauOverrideData1
- 3706 LicLogLamp2PhysLampIndex
- 3707 LicLogLamp2PhysLampData
- 3708 LicVersionData
- 3709 LicEdgeCutterRuleAssignment
- 370A LicHyakudanaProfiles
- 370B TL_ID

4.1.5 Engine Control Unit (DME)

4.1.5.1 ECU - BASIC MODE

- Auto Start Stop function memory - *Save the last used Auto Start Stop function setting for the next start of the car. The Auto Start Stop function is automatically activated again in ECO PRO driving mode.*
→ [Not active, Active]
- Auto Start Stop function - *Enable/disable the Auto Start Stop function.*
→ [Active, Not active]
- Battery capacity - *The capacity of the 12V battery. Note that this value must only be modified if the battery in the car has been replaced. After coding the battery replacement has to be registered using "BimmerLinik" additionally.*
→ [20Ah, 50Ah, 60Ah, 69Ah, 70Ah, 80Ah, 90Ah, **105Ah**]
- Battery type - *The type of the 12V battery. Note that this value must only be modified if the battery in the car has been replaced. After coding the battery replacement has to be registered using "BimmerLinik" additionally.*
→ [AGM, EFB, Lead acid, Lithium-ion]

4.1.6 Headunit (HU_NBT_EVO)

4.1.6.1 HU - BASIC MODE

- Checkbox acoustical pedestrian protection - *Enable/disable the checkbox in the settings in the iDrive system to turn the acoustic pedestrian protection on/off.*
→ [Not active, Active]
- Checkbox acoustical lock confirmation - *Enable/disable the checkbox in the settings for doors/keys in the iDrive system to enable/disable the acoustical lock confirmation.*
→ [Not active, Active]
- Warning chime - *The warning chime that sounds when a warning is displayed in the car.*
→ [BMW i warning chime, **BMW warning chime**, Mini warning chime, Rolls Royce warning chime]
- Ringtone - *The ringtone that is used in case of an incoming call.*
→ [BMW i ringtone, **BMW ringtone**, Mini ringtone, Smartphone ringtone]
- Maximum volume at start-up - *The maximum volume that is saved when the iDrive system is shut off and restored automatically on the next startup.*
→ [50%, 40%, 30%, **25%**, 20%, 10%]
- CarPlay fullscreen mode - *Show CarPlay in full screen mode. This feature is only supported in iDrive SW ver NBTev0_X.*
→ [Active, Not active]
- Checkbox daytime running light - *Enable/disable the checkbox in the lighting setting in the iDrive system to turn the DRL on/off.*
→ [Active, Not active]
- Start screen - *The type of start screen that is displayed when the head unit starts up.*
→ [Welcome screen, Animation]
- Start animation - *The animation that is displayed when the iDrive system is started.*
→ [ALPINA, BMW i, Connected Drive, M var 1, M var 2, Mini John Cooper Works, Mini var 1, MINI var 2, Rolls Royce, **Unassigned**]

- Volume popup - *Enable/disable the volume popup that is displayed when the volume is changed.*
→ [Active, Not active]
- Tire pressure control - *The displayed values of the tire pressure control in the iDrive system. The car must be equipped with TPMS.*
→ [Pressure only, Temperature and pressure, Not active]
- Rear view camera zoom - *Enable/disable the rear view camera zoom to the trailer hitch.*
→ [Not active, Active]
- Display full text messages - *Enable the full display of the text messages while driving.*
→ [Unassigned value, Active]
- Service history - *Enable/disable the service history in the iDrive system.*
→ [Active, Not active]
- Sport Displays - *Enable/disable the Sport displays in the iDrive system.*
→ [Active, Not active]
- Sport Displays color - *The color of the Sport displays in the iDrive system.*
→ [Orange, Red]
- Video via USB - *Enable video playback from USB storage media.*
→ [Unassigned value, Active]
- Additional video codecs and formats - *Activate additional video codecs and formats (Ogg, Xvid, and VCD).*
→ [Unassigned value, Active]
- Video in motion - *Enable video in motion.*
→ [Not active, Active]
- Warning at start-up - *Disable the warning that is displayed when the iDrive system is started.*
→ [Unassigned value, Not active]
- Camera warning - *Enable/disable the warning that is displayed when using one of the cameras.*
→ [Unassigned value, Not active]
- Night vision warning - *Enable/disable the warning that is displayed when using the night vision camera.*
→ [Unassigned value, Not active]

4.1.6.2 HU - EXPERT MODE

- 3000 HMI
- 3001 EXBOX
- 3002 AUDIO_TUNER_TRAFFIC
- 3003 TELEFON_TELEMATIK_ONLINE
- 3004 SYSTEM EINSTELLUNGEN
- 3005 DISPLAY_PIP_CONFIG
- 3006 NAVIGATION
- 3007 LANGUAGE
- 3008 FES
- 3009 EFFICIENT DYNAMICS
- 300A SARAH
- 300B TOUCH_COMMAND
- 300C HUD
- 300D KOMBI
- 300E TL_ID

4.1.7 Instrument Cluster (DKOMBI2)

4.1.7.1 ICU - BASIC MODE

- Acoustic signal when reverse gear is engaged - *Enable/disable the acoustic signal that sounds when the reverse gear is engaged.*
→ [Not active, Active]

- Logo - *The logo that is display in the center of the center of the instrument cluster.*
→ [No Logo, B5 Bi-Turbo, B6, B6 Bi-Turbo, B7, B7 Bi-Turbo, D5 Bi-Turbo, eDrive, M, M40d, M550d, M550i, M750Ld, M760i, M760Li, N750d, V12, XD3 Bi-Turbo]
- Alpina display style - *Activation of the ALPINA display style. Note that the car must be equipped with a fully digital instrument cluster.*
→ [Not active, Active]
- Speedometer up to 200 mph - *Activate the maximum display speed in the speedometer up to 200 mph.*
→ [Active, Unassigned value]
- Empty menu item in board computer - *Enable/disable the empty menu item in the board computer.*
→ [Active, Not active]
- Additional digital speed in speedometer - *Enable/disable the additional digital speed display in speedometer.*
→ [Unassigned value, km/h, mph, Not active]
- Digital speed in board computer - *Enable/disable the additional digital speed display in speedometer.*
→ [Not active, Active]
- Low fuel warning 1 - *The remaining range at which the permanent low fuel warning is displayed.*
→ [Not active, 50km, 40km, 30mi, 30km, 20mi, 20km, 10mi, 10km]
- Low fuel warning 2 - *The remaining range at which the temporary low fuel warning is displayed.*
→ [Not active, 90km, 80km, 70km, 60km, 50mi, 50km, 40mi]

4.1.7.2 ICU - EXPERT MODE

- 3000 Anzeige_Konfiguration
- 3001 KI_Parameter
- 3003 Analoge_Zeiger
- 3004 ERM_Konfiguration
- 3005 FuBi_Parameter
- 3006 Tank
- 3007 PIA_Einheiten
- 3008 CBS
- 3009 HUD_Parameter
- 300A CC_Konfiguration
- 3010 Fahrgestell_Nr
- 37EF TL_ID

4.1.8 Roof Function Center (FZD_08)

4.1.8.1 RFCU - BASIC MODE

- Acoustical Lock/Unlock Confirmation - *Enable/disable the acoustical confirmation when the car is locked/unlocked.*
→ [Active, Not active, Unassigned value]
- Confirmation sound volume - *The volume of the confirmation sound that is played when locking/unlocking the car.*
→ [Low, Normal, High, Very high]
- Confirmation sound frequency - *The pitch of the confirmation sound that is played when locking/unlocking the car.*
→ [Low, Normal, High]
- Confirmation sound duration - *The duration of the confirmation sound that is played when locking/unlocking the car.*
→ [Short, Normal, Long, Very long]
- Alarm sound - *The alarm sound that is played when the alarm is triggered.*
→ [Alarm sound Europe, Alarm sound Great Britain, Alarm sound USA]
- OBD alarm - *The alarm is triggered when the vehicle is locked and communication via the OBD port is detected.*
→ [Active, Not active]
- Interior motion detection - *Enable/disable the interior motion detection of the alarm system.*
→ [Active, Not active]

4.1.9 Seat Module Driver (CFAS_S15)

4.1.9.1 SMDU - BASIC MODE

- Seat heating/cooling setting memory - *The memory duration of the seat heating/cooling settings.*
→ [15 min, 24hrs, Do not save, Unlimited]

4.1.9.2 SMDU - EXPERT MODE

- 3000 SM_GLOBAL
- 3001 BEDIENUNG
- 3002 LIN
- 3003 SITZVERSTELLUNG
- 3004 MEMORY_UND_POPUPUS
- 3005 SITZMOTOREN
- 3006 SITZNORMIERUNG
- 3007 INITIALSIERUNG
- 3008 UEKB
- 3009 PRECRASH
- 300A PIA
- 300B ZIELPOSITIONEN
- 300C EAH
- 300D SITZHEIZUNG
- 300E SITZKLIMA
- 300F SW_THERMOSCHUTZ
- 3010 ROLLS_ROYCE
- 3011 SONDERAUSSTATTUNG
- 3012 NWR
- 3013 KF_GLOBAL
- 3014 KF_CC
- 3015 KF_LKV
- 3016 KF_SB
- 3017 KF_LK
- 3018 KF_KHV
- 3019 KF_RollsRoyce
- 301A KF_SSDV_G01_LNV_SHV_LNV
- 301B KF_G05_G07_SR2
- 301C KF_XZ_SLV_SHV_LNV_KHV
- 301D KF_XZ2_SLV_SHV_LNV_KHV
- 301E RSE_NACHFUEHRUNG
- 301F PWM_SITZVERSTELLUNG
- 3020 G05_07_SR2_SR3
- 3021 RESERVIERT1
- 3022 TL_ID

Appendix 1: Document Change Log

This section documents the changes made to this document.

A1.1 Document Revision 1.0.0

Release Date: September 10, 2020

BIMMERCode Rev: 3.6.1

Change Log:

1. Initial Release.

A1.2 Document Revision 2.0

Release Date: August 30, 2022

BIMMERCode FW Rev: 4.1 (12440) – 14.11.3

Change Log:

1. Added BIMMERCode Revision to the document revision table.
2. Minor corrections to document.
3. Added clarification/details to coding options in section 3.0 and new coding options.
4. Added 9 new coding options to section 3.0.
5. Added section 3.01 Quick Programming Sheet.
6. Added section 3.1 discussion on popular coding request (i.e. Brake Force Display)
7. Updated section 4.0 to reflect option changes in the BIMMERCode due to the firmware (FW) Rev 4.1 (12440) – 14.11.3 update and changes due to the ECU firmware updates from the brake recall.
- 8.

Appendix 2: Exporting Backup image on an iOS device

The information in Appendix 2 was taken from the apple support website.

Use iTunes to share files between your computer and your iOS or iPadOS device

You can copy files between your computer and apps on your iOS or iPadOS device using File Sharing.

Before you begin

If you're using macOS Catalina, [use the Finder to share files between your computer and your iOS or iPadOS device](#).

Instead of File Sharing, consider using iCloud Drive, Handoff, or AirDrop to keep your documents up to date across all of your devices.

[iCloud Drive](#) lets you securely access all of your documents from your iPhone, iPad, iPod touch, Mac, or PC. No matter which device you're using, you'll always have the most up to date documents when and where you need them.

With [Handoff](#), you can start a document, email, or message on one device and pick up where you left off from another device. Handoff works with Apple apps such as Mail, Safari, Maps, Messages, Reminders, Calendar, Contacts, Pages, Numbers, and Keynote. Some third-party apps are also compatible.

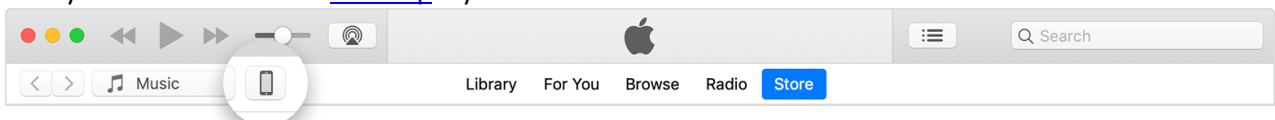
[AirDrop](#) helps you share photos, videos, websites, locations, and more with other nearby Apple devices.

What you need for File Sharing

- The [latest version of iTunes](#).
- The [latest version of macOS](#) or an up-to-date version of Windows 7 or later.
- An iPhone, iPad, or iPod touch with the [latest version of iOS or iPadOS](#).
- An iOS or iPadOS app that works with File Sharing.

See which of your iOS and iPadOS apps can share files with your computer

1. Open iTunes on your Mac or PC.
2. Connect your iPhone, iPad, or iPod touch to your computer using the USB cable that came with your device.
3. Click your device in iTunes. [Get help](#) if you can't find it.



4. In the left sidebar, click File Sharing.

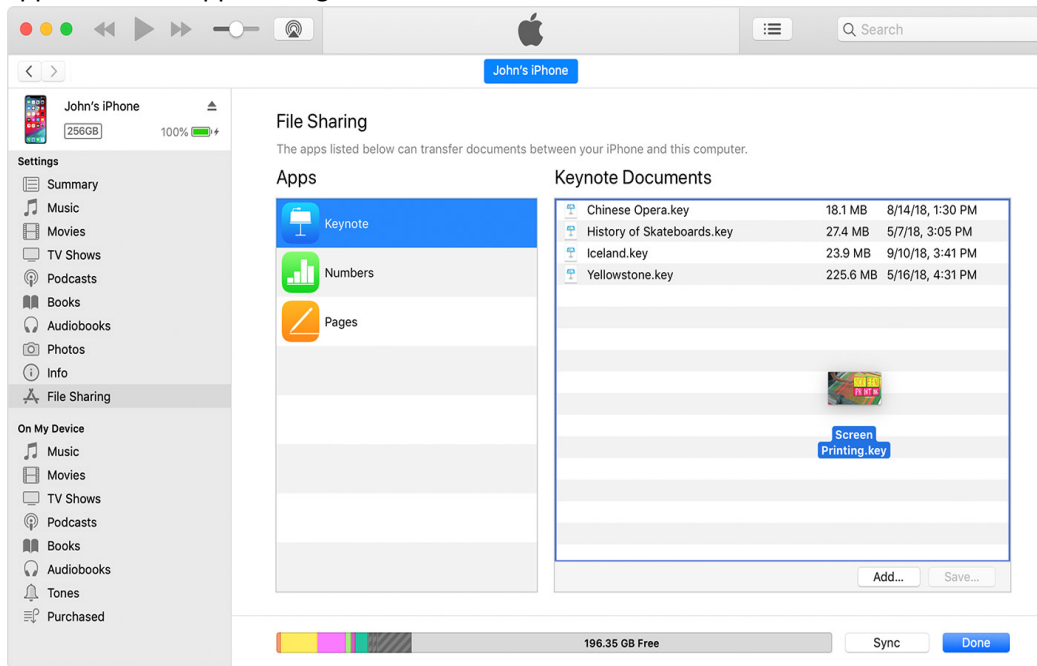


5. Select an app to see which files are available for sharing in that app on your device. If you don't see a File Sharing section, your device has no file-sharing apps.

**Copy files from your computer to your iOS or iPadOS app**

1. In iTunes, select the app from the list in the File Sharing section.
2. Drag and drop files from a folder or window onto the Documents list to copy them to your device.
You can also click Add in the Documents list in iTunes, find the file or files you want to copy from your computer, and then click Add. iTunes copies these files to the app on your device. Choose only files that will work with the

app. Check the app's user guide to learn which kinds of files will work.



Copy files from an iOS or iPadOS app to your computer

1. In iTunes, select the app from the list in the File Sharing section.
2. Drag and drop files from the Documents list to a folder or window on your computer to copy them to your computer.

You can also select the file or files that you want to copy to your computer from the Documents list and click "Save" then find the folder on your computer to which you want to copy the files and click Save.



Open shared files

On your iOS device, you can open the files from your computer with the app that you chose for File Sharing.

You can't access these files from other apps or locations on your device. You can [see the list of files](#) in the File Sharing section of iTunes when your device is connected to your computer.

Back up shared files

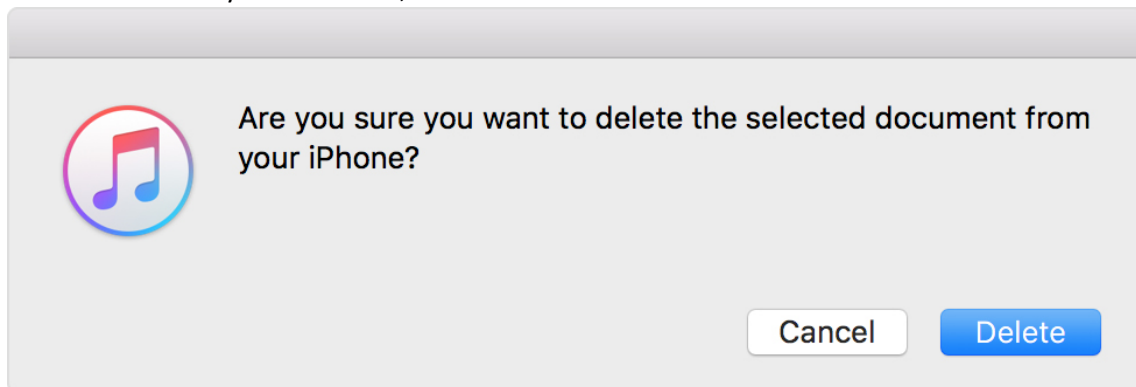
When iCloud (or iTunes) [backs up your device](#), it backs up your shared files as well.

If you delete an app with shared files from your iOS device, you also delete those shared files from your device and your iCloud or iTunes backup. To avoid losing shared files, [copy the files to your computer](#) before deleting the app from your iOS device.

Delete a shared file from your iOS device

To delete a file you copied to an iOS or iPadOS app using File Sharing, follow these steps:

1. Open iTunes on your Mac or PC.
2. Connect your iPhone, iPad, or iPod touch to your computer using the USB cable that came with your device.
3. Select your device in iTunes. [Get help](#) if you can't find it.
4. Select the app from the list in the File Sharing section.
5. Select the file that you want to delete in the Documents list, then press the Delete key on your keyboard.
6. When iTunes asks you to confirm, click Delete.



There might be other ways to delete files from an app. Read your app's user guide to find out more.