# BSGc(Button Signal Generator CAN) User Guide

## 1. Feature of BSGc

- Generates CAN signal for car stereo remote control.
- Controlled by CarPC JoyCon Exc though J2P BUS
- Generates Phone/Mute signal
- SMPS power supplier circuit(Ultra low heat emission)





### 3. Board Layout



#### 4. Factory Reset

Initialize the configuration including baudrate CAN button messages.



## 5. Installation

You can control both car PC and car stereo with steering wheel controls using BSGc. BSGc(Button Signal Generator CAN) is an external device connected through J2P BUS. Connect CPJexc's HOST and J2P to BSGr's HOST and J2P respectively. Disconnect CAN wire from the car stereo.

Connect BSGc's CAN (CANH, CANL)wire to the car stereo's CAN wire.



#### 6. JoyCon Explorer Setting

- 1. Choose the number of BSG device in **Num. of BSG**.
- 2. Choose the **BSG index**.
- 3. Choose the **Type** of BSG as BSG-C.



Drag and Drop IBUS message from the **CPJexc CAN Scanner** to BSG Button.

CAN message of **Up Button** is generated when the steering wheel button is pressed. CAN message of **Down Button** is generated when the steering wheel button is released. **Name** of BSG button is spoken when the Button is pressed.

					JoyCon Explorer - [1(C			
CPJexc CAN Scanner -				$\mathbf{O}$	Le	Preset Edit	Option	About
Button Message		Button					-	1(CPJexc):C
Dur: 0 Len: 8 ID	:0234 Data:01 01 01 01   01 01 01 0E	A1 Dov	FOI	der But	ton v	oice Preset Mis	CIFW	BMW Stere
Dur: 0 Len: 8 ID	:0234 Data:01 00 01 01   01 01 01 0E	A1Up	A	B	C/D	LED BSG	MIX	
Dur: 0 Len: 8 ID	:03CD Data:02 01 02 02   02 02 02 0E	A2 Down	2	own U	p	Name	1	
Dur: 0 Len: 8 ID	:03CD Data:02 00 02 02   02 02 02 0E	A2 Up	10a	ata: 110			02	
		Drag-	Dro	р <sup>©</sup> ф			3	A1 A2
		-	3	•	_		Carla	
>			4				Config	
			5					B1 B2

The CAN Message dialog box appears by clicking the BSG button. You can type CAN message in the edit box. "Dur:" is duration of the IBUS message that is repeated while the button is being pressed.

✦ JoyCon Explorer - [1(CPJexc):CarPC JoyCon Exc] : BMW Stereo.prs - □ ×					
	Preset Edit Option About				
Folder Button	Voice Preset Misc FW 1(CPJexc):CarPC JoyCon Exc BMW Stereo				
A B C/ Down Up	Button 1 Down - CAN Message				
1Data:01(	ata:01 Dur: 0 Len: 8 ID:0234 Data:01 01 01 01 01 01 00 0E				
2	Send				
3					
4	Config				
5					

You can test the BSG button by clicking the number. And you can also test the Down or Up message by Send command in the context menu that appears by right clicking of the button message.



BSG settings can be saved as or restored from a file(.bsg) with **Import** and **Export** button.

Drag-drop buttons to the BSG buttons to connect a steering wheel button to a BSG button.

*	JoyCon Explorer - [1(CPJexc):Ca						
	Preset Edit	Option	About				
Folder Butto	n Voice Preset Mis	FW	1(CPJexc):CarPC JoyCo BMW Stereo				
A B Down Up 10ata:01 Oat 2 3 4 5	C/D LED BSG Name a:01 (Next Track	MIX 1 2 3 Config	A1 A2 Drag-Drop				
6 7 8 9 10			BSG Button Sigr				
11 12 Phone		Import Export	A1 = Next Track				
Type BSG-C	✓ Num. of B Sav	SG 1 ∨ re/Apply					

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