Remote start of the generator via RPC ID

How does a remote start work in practice?

In this example you will activate the automatic start using PROPA00 (PGN 61184) and the RPC ID 0x0012. After this you will start the generator using PROPA00 as well. But in this case with the RPC ID 0x009c. Let's dive into the example!

Activating the automatic start

Activate the automatic start mode using PROPA00 (PGN 61184) and the RPC ID 0x0012.

Write-Request	Parameter definition	Resolution/Offset	Data Range
RPC-ID	0x8012	-	-
param #1	0: automatic start-mode off 1: automatic start-mode on	1/bit / 0 offset	0…1
param #2	-	-	-
param #3	-	-	-

Write-Response	Parameter definition	Resolution/Offset	Data Range
RPC-ID	0x8012	-	-
param #1	0: automatic start-mode off 1: automatic start-mode on	1/bit / 0 offset	0…1
param #2	-	-	-
param #3	-	-	-

In contrast to most standard PGNs, the RPC IDs and their parameters are big-endian-coded, that is, the most significant byte is sent first: 80 12.

Transmit PROPA00 (PGN 61184) containing a remote procedure write request for the RPC ID 0x0012 to the CAN interface (with FP_RPC_Request_WriteReq = 1 the Request Code is 0x8012). Parameter #1 (Payload1) contains the value »1« for automatic start mode on. The **destination address** is **»234«** (hex. 0xEA) for the CAN interface:

CAN-ID	PGN	DLC	Symbol	Data	Source	Destination
18EFEA19h	61184	8	PropA	FP_RPC_Request_Code = 8012h (automatic start)	25	234
				FP_RPC_Request_Payload1 = 0001h		
				FP_RPC_Request_Payload2 = 0000h		
				FP_RPC_Request_Payload3 = 0000h		

Note: If you use a static address, use this address as the destination address.

The generator control acknowledges with PROPB00 (PGN 65280) as broadcast. This message contains the write response with the echoed value of request:

CAN-ID	PGN	DLC	Symbol	Data	Source	Destination
0CFF00EAh	65280	8	PropB_00	FP_RPC_Reply_Code = 8012h (automatic start)	234	255
				FP_RPC_Reply_Payload1 = 0001h		
				FP_RPC_Reply_Payload2 = 0000h		
				FP_RPC_Reply_Payload3 = 0000h		

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Intermediate result:

⇨ The automatic start is activated.
⇨ The control panel displays the activated automatic start.

Remote starting of the generator

Starting the generator using PROPA00 (PGN 61184) and the RPC ID 0x009c.

Write-Request	Parameter definition	Resolution/Offset	Data Range
RPC-ID	0x809c	-	0…65535
param #1	1 = start 0 = stop / clear errors	1/bit / 0 offset	0…1
param #2	-	-	-
param #3	-	-	-

Write-Response	Parameter definition	Resolution/Offset	Data Range
RPC-ID	0x809c	-	0…65535
param #1	position of remote GUI's switch	1/bit / 0 offset	0…1
param #2	-	-	-
param #3	-	-	-

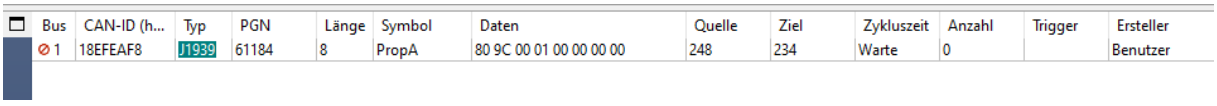
In contrast to most standard PGNs, the RPC IDs and their parameters are big-endian-coded, that is, the most significant byte is sent first: 80 9c.

Transmit PROPA00 (PGN 61184) containing a remote procedure write request for the RPC ID 0x009c to the CAN interface (with FP_RPC_Request_WriteReq = 1 the Request Code is 0x809c). Parameter #1 (Payload1) contains the value »1« for remote start. The **destination address** is **»234«** (hex. 0xEA) for the CAN interface:

CAN-ID	PGN	DLC	Symbol	Data	Source	Destination
18EFEA19h	61184	8	PropA	FP_RPC_Request_Code = 809ch	25	234
				FP_RPC_Request_Payload1 = 0001h		
				FP_RPC_Request_Payload2 = 0000h		
				FP_RPC_Request_Payload3 = 0000h		

The generator control acknowledges with PROPB00 (PGN 65280) as broadcast. This message contains the write response with the echoed value of request:

CAN-ID	PGN	DLC	Symbol	Data	Source	Destination
0CFF00EAh	65280	8	PropB_00	FP_RPC_Reply_Code = 809ch	234	255
				FP_RPC_Reply_Payload1 = 0001h		
				FP_RPC_Reply_Payload2 = 0000h		
				FP_RPC_Reply_Payload3 = 0000h		



Bus	CAN-ID (h...	Typ	PGN	Länge	Symbol	Daten	Quelle	Ziel	Zykluszeit	Anzahl	Trigger	Ersteller
⊘ 1	18EFEAF8	J1939	61184	8	PropA	80 9C 00 01 00 00 00 00	248	234	Warte	0		Benutzer

Screenshot: PropA with data for starting the generator: 80 9C 00 01 00 00 00 00

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Result:

⇨ The generator is starting.

Stopping generator and deactivating automatic start are working in the same way. In each case, set the byte "param #1" to "0".

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