

Model Electronic Railway Group


- START • Public Site • Links • TBs • Kit Orders • Software • Knowledgebase • 3D Vault • Journal • Exhibition • MERG TV • Your Profile

☰ Quick links

🔗 FAQ

🔔 Notifications

✉ Private messages

 david\_ellis ▾

🏠 Board index < MERG Kit help (per kit) < CBUS Kits and construction issues < CANMIO Kits 98 & 98A 🔍

📄 New posts

📄 Unread posts

CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Moderator: howard

Post Reply ↩

 | ▾

Search this topic...





15 posts • Page 1 of 1

crosland

!

“

CANMIO-SVO Rejects NVSET Unless in Learn Mode.

📅 Mon Apr 17, 2023 12:02 pm

Why?

This is contrary to the CBUS spec, which does not require a node to be in learn mode to set its NVs.

It makes life harder for configuration tools.

Andrew Crosland

⬆

stephen\_young

!

“

Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

📅 Wed Apr 19, 2023 1:56 am

Hi Andrew,

Is it a CMDERR 2 response following the module being sent an NVSET ?

As per the KB "This firmware is derived directly from, and builds from the same source file as, the CANSERVO8c version 4 firmware".

Perhaps someone could test if this behaviour is the same in that firmware for us?

Does anyone know of any other firmwares which do this?

Ta,

Steve.

⬆

crosland

!

“

Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

📅 Wed Apr 19, 2023 9:49 am

“

stephen\_young wrote: ↑

Is it a CMDERR 2 response following the module being sent an NVSET ?

Yes

CODE: [SELECT ALL](#)

```
JMRI > > CBUS | 09:24:47.206 NVSET NN:500 CANMIO_SVO NV: 5 Val: 90 Set node variable
JMRI < < CBUS | 09:24:47.226 CMDERR NN:500 CANMIO_SVOERROR : Not In Learn Mode. Node Config Error
```

“

As per the KB "This firmware is derived directly from, and builds from the same source file as, the CANSERVO8c version 4 firmware".

Perhaps someone could test if this behaviour is the same in that firmware for us?

Yes, it's the same going back to the original canservo8 code.

In the earlier edit gui I added a button "Live Update" that put the node in Learn. This was to mimic the FCU behaviour which puts the node in Learn when you open the NV setting dialog. I didn't think too much of it at the time.

From the other thread

“

I'm not keen on sending blanket Node into Learn / out of Learn for NV writes on every module. It will only encourage future module firmware developers to code out of specification. I could add an override for this if you like, though will take a few days?

No, a blanket solution would be a bad thing in my opinion, too. I also don't like putting a node into Learn and then doing a series of NVSET. There's too much opportunity to leave the node in Learn.

If you can detect the NVSET to a CANMIO-SVO and put the node in Learn and then take it out of Learn that would be ideal, if inefficient.

Andrew Crosland

**PeteB**

Site Admin



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

📅 Thu Apr 20, 2023 8:09 am

There are a number of anomalies with older firmware, which we just have to live with unless anyone is inclined to go in and do the fixes. And even if they were fixed, many users would still be running the original versions.

FCU and its siblings have to handle these special cases.

Regards,

Pete

**crosland**



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

📅 Thu Apr 20, 2023 11:16 am

I was more interested in why, if anyone knows? Am I missing some subtlety of the code that **requires** it to be in learn mode?

We will/do work around these issues.

Andrew Crosland



ian\_hogg



### Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 1:50 pm

When configuring events learn mode means that the target module's NN doesn't need to be specified in the learn message. Only the NN, EN for the event along with the EV number and value need to be specified which means that it can fit into a CAN frame. It is therefore "required" for events.

It is not required for NVs.

Whether it makes sense to use learn mode for NVs would be a long discussion...

Ian

Last edited by ian\_hogg on Thu Apr 20, 2023 4:27 pm, edited 1 time in total.

There are 2 types of people in the world: 1. Those who can extrapolate from incomplete data.



crosland



### Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 3:57 pm

ian\_hogg wrote: ↑

Whether it makes sense to use lean mode for NVs would be a long discussion...



Andrew Crosland



david\_ellis



ONLINE

### Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 4:54 pm

Andrew,

*Yes, it's the same going back to the original canservo8 code.*

I'm trying to create 'module' files for Nigel's quasar-FCU, and the issue of needing to go into 'learn' to write NV's is particularly relevant

So, I was hoping you could help me with a couple of questions

- I don't seem to be able to find the firmware for canservo8 - I'm guessing it's no longer used, but would like to be able to read the asm file

- Is there an easy way to identify which modules are derived from canservo8 (and need to be put into 'learn') ?

Regards

David



**grovenor**  
Site Admin



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 5:03 pm

CANSERVO8C firmware is exactly where its supposed to be. 😊

[https://www.merg.org.uk/merg\\_wiki/doku. ... t\\_firmware](https://www.merg.org.uk/merg_wiki/doku. ... t_firmware)

And the .asm is included in the .zip file.

It was derived from the CANACC8.

Regards

Keith

<http://www.norgrove.me.uk>



**david\_ellis**



ONLINE

## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 5:26 pm

grovenor wrote: ↑

CANSERVO8C firmware is exactly where its supposed to be. 😊

[https://www.merg.org.uk/merg\\_wiki/doku. ... t\\_firmware](https://www.merg.org.uk/merg_wiki/doku. ... t_firmware)

And the .asm is included in the .zip file.

It was derived from the CANACC8.

So, CANSERVO8 is the same as CANSERVO8C?

That would explain why I can't find a module ID for CANSERVO8, only CANSERVO8C

But there is a PCB number for CANSERVO8 (and it implies it used to be a kit) - so I'm guessing that CANSERVO8 just relates to the hardware then?

And if it was derived from CANACC8, does that need to be in 'learn' mode to write NV's?  
and CANACC8 firmware has the following comment...

CODE: [SELECT ALL](#)

```
; Code is the same for both CANACC5 and CANACC8 except for the module ID
```

So does CANACC5 need to go into 'learn' mode to write NV's?

David



**WhiteCF**



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 6:46 pm

david\_ellis wrote: ↑

... so I'm guessing that CANSERVO8 just relates to the hardware then? ...

Kind of the other way around as I understand it. [CANSERVO8C](#) is just alternative firmware for the [CANACC8 \(Kit 88\)](#) hardware but there is a [PCB available as Kit 987](#) which provides the three pin connectors for plugging in a servo directly rather than you having to fabricate something of your own for connecting to the [CANACC8](#).

Chris White (M819)



WhiteCF



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 6:59 pm

**“** [david\\_ellis](#) wrote: ↑

... So does CANACC5 need to go into 'learn' mode to write NV's? ...

Looking back at some tests I've run neither the CANACC4 nor CANACC5 need to be in "learn" mode in order to write NVs. However whereas the CANACC5 sends a "WRACK" the CANACC4 makes no acknowledgement of the write so you'd need to verify it by reading back the NV after writing.

Chris White (M819)



grovenor  
Site Admin



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 7:15 pm

**“** [david\\_ellis](#) wrote: ↑

But there is a PCB number for CANSERVO8 (and it implies it used to be a kit) - so I'm guessing that CANSERVO8 just relates to the hardware then?

The CANSERVO8 or 8C was never a kit, originally a diagram was provided to enable the 8 servo connectors to be linked to a CANACC8, then the PCB was produced to make it easier, I have used both versions, unfortunately the PCB omitted the LM317 from the CANACC8 so instead of an extra bit of stripboard to add the connectors you needed an extra bit of stripboard for the LM317 to create the 5V for the servos.  
But eventually the firmware became the CANMIO-SVO.

Regards  
Keith  
<http://www.norgrove.me.uk>

crosland



## Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

Thu Apr 20, 2023 9:07 pm

**“** [david\\_ellis](#) wrote: ↑

Andrew,


*Yes, it's the same going back to the original canservo8 code.*

I'm trying to create 'module' files for Nigel's quasar-FCU, and the issue of needing to go into 'learn' to write NV's is particularly relevant

So, I was hoping you could help me with a couple of questions

I think others beat me too it 😊

Andrew Crosland

david\_ellis

ONLINE

Re: CANMIO-SVO Rejects NVSET Unless in Learn Mode.

📅 Thu Apr 20, 2023 9:13 pm

Thanks everyone for the help in understanding the mix of boards & firmware  
I'm beginning to realise why the FCU was such a big task to support

Post Reply ↩

15 posts • Page 1 of 1

< Return to "CANMIO Kits 98 & 98A"

Jump to ▾

WHO IS ONLINE

Users browsing this forum: david\_ellis and 0 guests

Board index

The team

Members

Delete cookies

All times are UTC+01:00

Powered by phpBB® Forum Software © phpBB Limited

Privacy | Terms

https://www.merg.org.uk/forum/viewtopic.php?t=16681

6/6