



INSTRUCTION TO SERVICE

ITS: 59172

SECTION:	470 DESTINATION SIGNS
WRITTEN BY:	Curtis Matthews
SUBJECT:	Remove and replace old NF Connect module with 4G module

ITS 59172

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PROCEDURE:

<u>Failure Description</u>	The NF connect module is obsolete
<u>Cause Description</u>	Old NF connect operates on 2G network and 2G is no longer supported in customer area
<u>Corrective Action</u>	Replace the old NF connect module with the new module which will support 4G network

1. Turn the main battery disconnect switch to the “OFF” position.
2. Locate the old NF Connect module at the bottom of SDS panel in the bus as shown in figure 1.

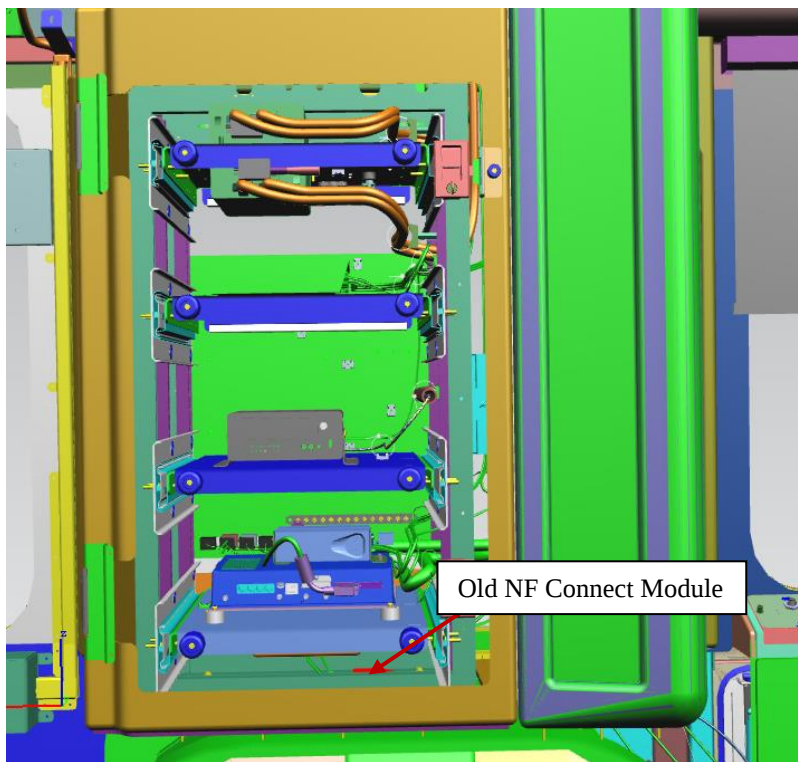


Figure 1: NF Module - SDS Panel

- a. Pull back the trays to get access of the new flyer connect module (P/N 451482),
- b. Remove the existing assembly.
 - 2.b.1. Unplug the connectors that are connected to the module and remove the sim card.
 - 2.b.2. Unmount the support plate (P/N 455946) as shown in figure 1.
 - 2.b.3. Remove the attached antenna and cable.

3. Locate all the new parts that were sent for the new module, and install new NF Connect module.
 - a. Using the marker write on (P/N 8112067), print the serial number of the sim and affix it to the module.
 - b. Insert the old sim card into the module.
 - c. Clean surface where the old Connect module was seated thoroughly with alcohol wipes.
 - d. Mount the new NF Connect module (P/N 843421) from Kit (P/N 6483714) in the same place as the old Connect module using locally sourced 30 lb Gorilla Tape.
4. Locate the harness access cover and the driver locker compartment as shown in figure 2.

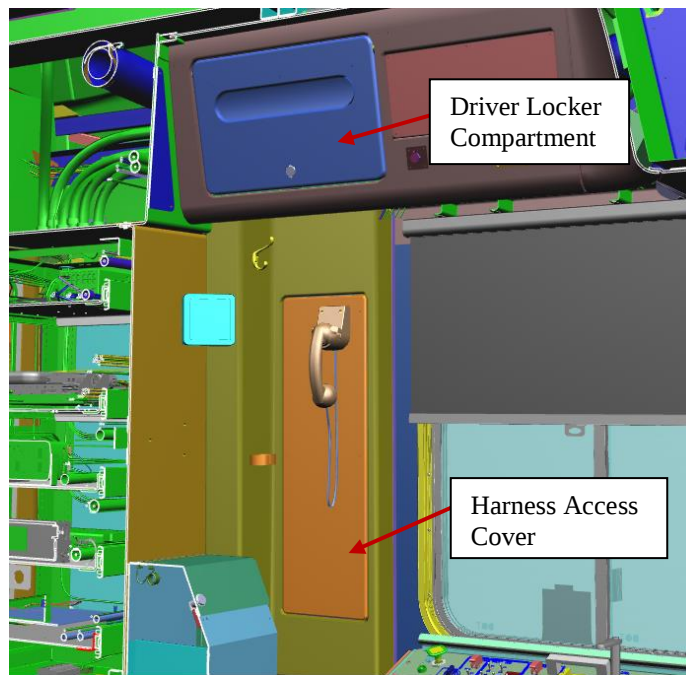


Figure 2: Harness Access Cover and Driver Locker Compartment

- a. Remove the harness access cover by taking out the 6 screws.
- b. Remove the mount bracket hinge of the driver's compartment to get access of the driver overhead box as shown in figure 3.
- c. Remove the driver's overhead box by taking out the 9 screws.

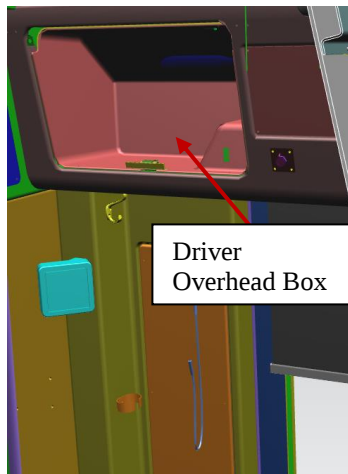


Figure 3: Driver Overhead Box

- d. Using the Sika, stick the new antenna (P/N 843419) from Kit (P/N 6483714) on the top of driver overhead box. See figure 4.
- e. Route the cable from antenna behind the overhead compartment to the harness support rack and then to the SDS box using tyrraps (P/N 5955945) for cable management as needed. Use Telematic system install (P/N 847512) and figure 5 for reference.

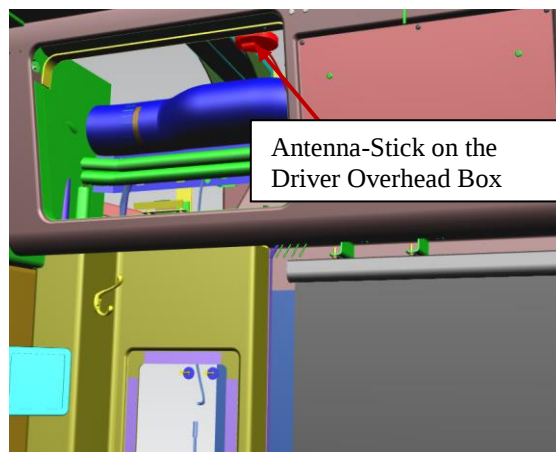


Figure 4: Location of Antenna on the Driver Overhead Box

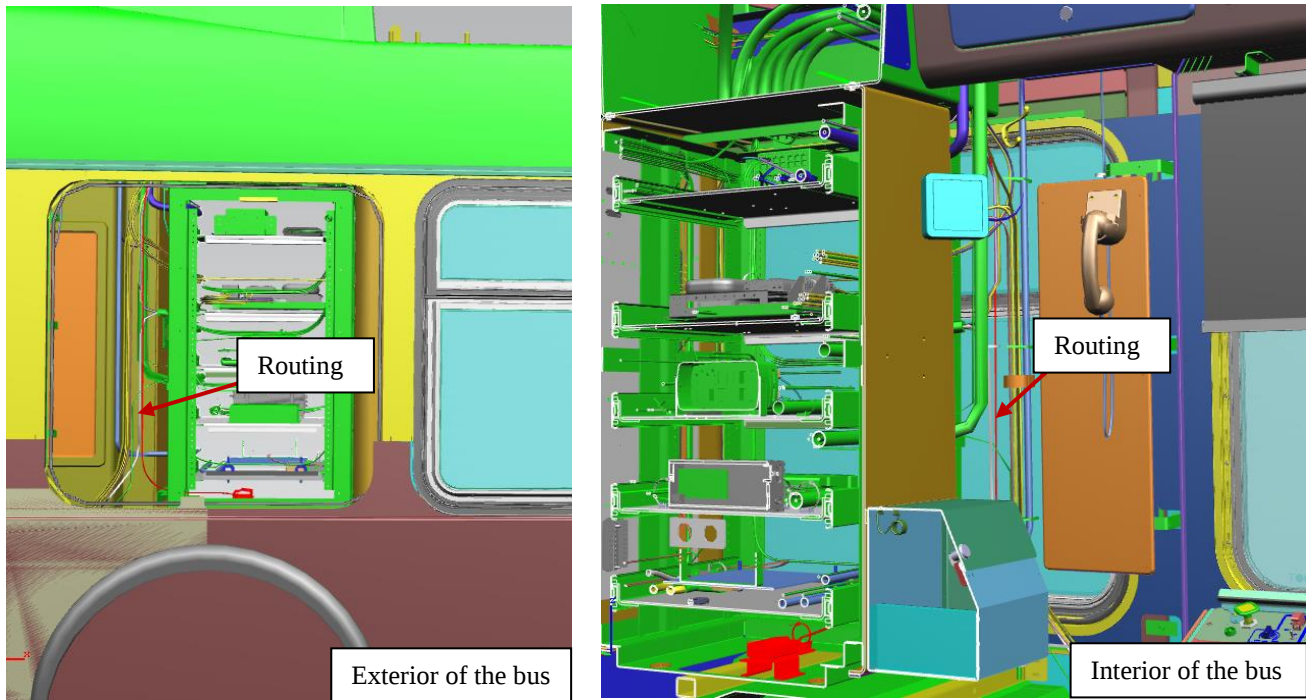


Figure 5: Routing of the Antenna Cable

5. Get access of the SDS box. Use figure 6 and figure 7 for reference for the following steps.
 - a. Connect the antenna cable to the connect module.
 - b. Insert the 24 pin Molex connector of telematic adapter (P/N 743002) from Kit (P/N 6483714) to the Aux 1 of the module.
 - c. The other side of telematics adapter goes to the J1 connector.
 - d. The J8 connector goes directly to the Aux 2 of the NF module.
 - e. Connect the Dallas cable that is branching out from telematic adapter to the DMAS cable connector.
 - f. Turn the main battery disconnect switch to the “ON” position.

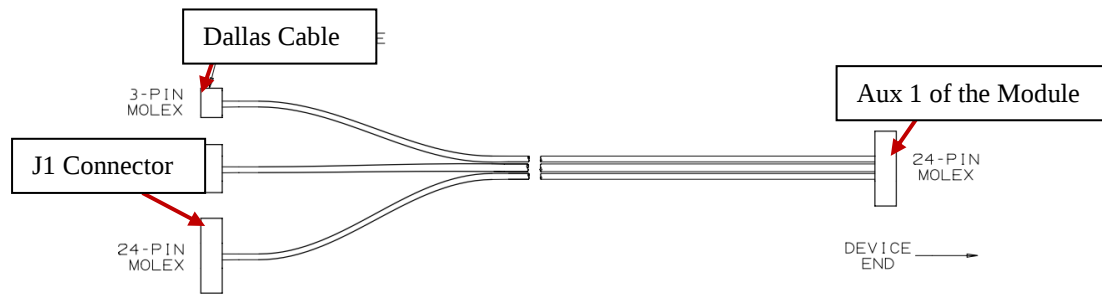


Figure 6: Telematic Adapter

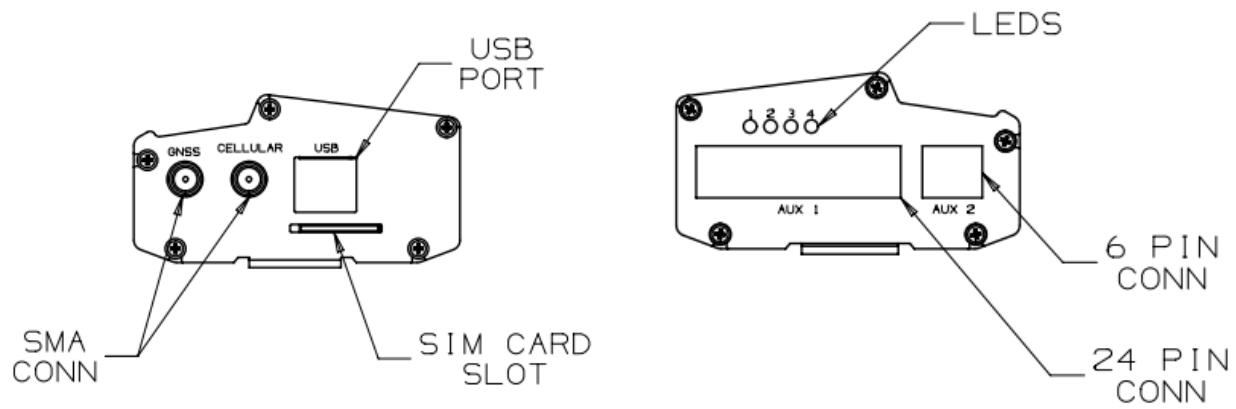


Figure 7: Connections for NF Connect Module

6. Work with NF Connect personnel directly and wake-up new Connect system.

a. You will first need to download the Kitty Portable from this website:

<https://www.techspot.com/downloads/downloadnow/5985/?evp=2ed67c8d0a2b46f8ddda2aedd73354d&file=2>

b. You may need to download a driver if the computer not recognizing the cable being used:

http://www.prolific.com.tw/US/ShowProduct.aspx?p_id=225&pcid=41

c. You will also need a 9pin DSUB to usb cable to interface between the Connect module and your laptop.

d. In figure 8 below, complete the settings in the Kitty configuration. COM 1 is shown below as default; however your COM port may be different, type in the COM port that you are using on your computer.

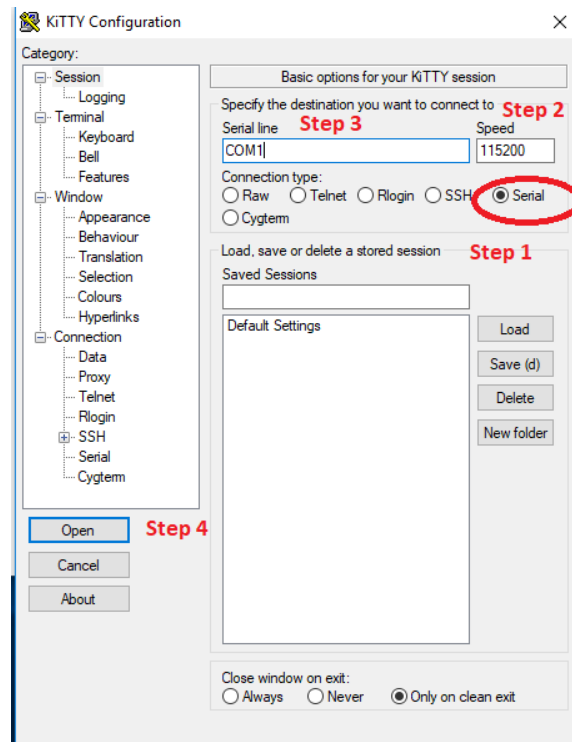
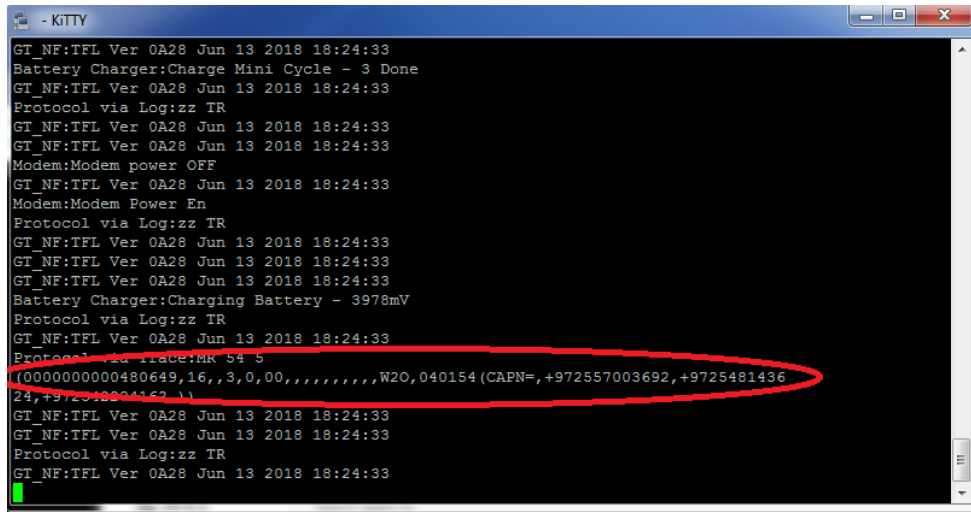


Figure 8: Kitty Portable Software

- e. After clicking **Open**, you'll have a black window, and some text will start appearing, see figure 9.
- f. Copy the following line: (o2w,5;capn?), and right click with your mouse in the black window. This sends the command to the module, and immediately you'll see a response line to the command you just sent.
- g. Then copy the following line (o2w,7;CONFIG?) and right click with your mouse in the black window. This sends the command to the module, and immediately you'll see a response line to the command you just sent.



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- KITTY
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Battery Charger:Charge Mini Cycle - 3 Done
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Protocol via Log:zz TR
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Modem:Modem power OFF
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Modem:Modem Power En
Protocol via Log:zz TR
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Battery Charger:Charging Battery - 3978mV
Protocol via Log:zz TR
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Protocol via Log:zz TR
(0000000000480649,16,,3,0,00,,,,,,,,,W20,040154(CAPN=,+972557003692,+9725481436
24,+9725481436)
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33
Protocol via Log:zz TR
GT_NF:TFL Ver 0A28 Jun 13 2018 18:24:33

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Figure 9: Kitty Portable Software black window with text

LABOUR ESTIMATE

	Operation	Men	Hours	Labour Time M X HR
1	Remove and replace old NF Connect module with 4G module	1	2	2

PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	5955945	TYRAP-14.0 BLACK	5	EA	
2	8112067	MARKER-WRITE ON	1	EA	
3	6483714	KIT-SET TRT 4G	1	EA	Kit includes: Module PN: 843421, Antenna PN: 843419, Cable PN: 743002
4	XXXXXX	30 lb Gorilla Tape	0.1	EA	Locally sourced
5	XXXXXX	Extra Alcohol Wipes	0.1	EA	Locally sourced

SPECIAL TOOLS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	XXXXXX	KITTY PORTABLE SOFTWARE	1	EA	
2	XXXXXX	9 PIN DSUB TO USB CABLE	1	EA	