



FlexRadio

FLEX-6700/6500 MicroSD Card Installation Guide

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The following guide will provide the necessary step-by-step procedure for installing a MicroSD card in a FLEX-6700 or FLEX-6500.

Table of Contents

GETTING STARTED	2
<i>Required Tools</i>	2
<i>Materials needed for Service Procedure</i>	2
PREPARING TO INSTALL THE MICROSD CARD	2
<i>Removing the Chassis Feet</i>	2
<i>Removing the Bottom Cover</i>	3
REMOVING THE EXISTING MICROSD CARD	5
<i>Locating the RF Isolation Cover</i>	5
<i>Removing the RF Isolation Cover</i>	6
<i>Remove the MicroSD Card</i>	8
INSTALLING THE NEW MICROSD CARD	9
<i>Installing the New MicroSD Card in the Card Socket</i>	9
<i>Installing the XXX Tape over the MicroSD Card Socket</i>	10
<i>Reinstall RF Isolation cover</i>	11
<i>Reinstalling the Bottom Cover</i>	12
<i>Reinstalling the Chassis Feet</i>	14

Getting Started

Required Tools

- A number 2 (#2) Phillips Screwdriver
- A small flat blade screwdriver
- #8 TORX wrench

Materials needed for Service Procedure

- One (1) SmartSDR MicroSD Card
- One (1) piece of Kapton tape (attached to the antistatic bag)

Preparing to Install the MicroSD Card

Removing the Chassis Feet

Remove the four (4) feet from the chassis using a #2 Phillips screwdriver as shown in the image below. Retain the chassis feet and screws for re-installation later.



The image below shows all four (4) chassis feet removed.



Removing the Bottom Cover

The bottom chassis cover for the FLEX-6000 must be removed before the MicroSD card can be installed.

Using a #8 TORX wrench remove the three (3) short **Bottom Cover Side screws** from the **left** side of the FLEX-6000.

Then remove the remaining three (3) short Bottom Cover Side screws from the **right** side of the FLEX-6000. Retain the Bottom Cover Side screws for re-installation. The image below shows the removal of the left side bottom Cover Side screws.



After removing the bottom cover side screws remove the six (6) stainless steel (silver) **Bottom Cover screws** using a #8 TORX wrench. Retain the bottom Cover screws for re-installation. The image below shows the removal of the Bottom Cover screws.



Once the bottom cover retaining screws have been removed, gently pull the Bottom Cover upwards to remove it from the FLEX-6000. The image below shows the removal of the Bottom Cover.



Removing the Existing MicroSD Card

Once the bottom cover has been removed, the RF Isolation cover must be removed to access the MicroSD card slot.

Locating the RF Isolation Cover

The RF Isolation cover is located at the bottom of the radio. It is a rectangular silver cover with perforated holes in it. There are red or gold warranty security seals installed to prevent the customer from opening the enclosure. See the picture below.



Removing the RF Isolation Cover

Using a knife or flat blade screwdriver, cut or remove the security seals so the RF isolation cover can be removed. See the image below of the RF Isolation cover with the warranty security seals removed. Note some of the seal adhesives will remain on the RF Isolation cover.



Take note of how the RF Isolation cover is seated in the shield housing's "teeth"(retaining tabs) for reassembly purposes.

Using a flat blade screwdriver, gently pry up the RF Isolation cover. It is best to do this at several locations so that the cover does not twist and separate the retaining tabs. This is shown below in the next two images.





Lift and remove the cover.

Remove the MicroSD Card

The next step is to remove the MicroSD card from the FLEX-6000.

The MicroSD card is located adjacent to the FPGA processor/fan assembly. There may be a piece of Kapton tape covering the top of the card retaining clip. If so, carefully remove the Kapton tape.

Gently slide the silver MicroSD card retaining clip **away** from the FPGA processor/fan assembly so that it releases and lifts as shown below.



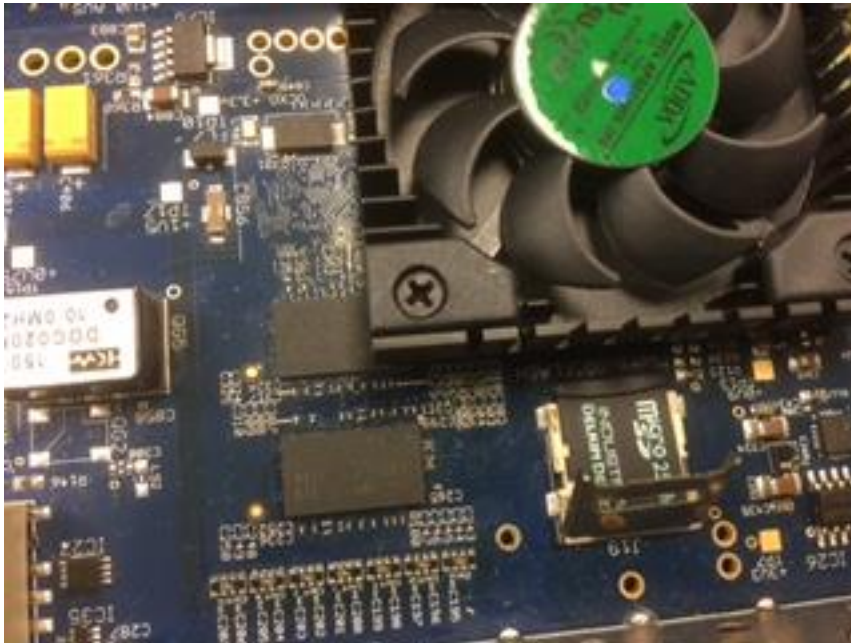
Using a non-metallic object to lift the end of the card nearest to the FPGA processor/fan assembly, the MicroSD card should easily lift out of the card socket so it can be removed.

Installing the new MicroSD Card

Once the existing MicroSD card has been removed, install the new MicroSD card that has been formatted and has the SmartSDR firmware installed. Installing an unformatted MicroSD card without the SmartSDR firmware installed will result in the radio not booting.

Installing the New MicroSD Card in the Card Socket

Make sure the silver retaining clip is in the unlocked and upright position. Carefully place the new MicroSD card in the card socket. There is a plastic “key” on the right-hand side of the MicroSD card that aligns up with a key slot on the card socket. Make certain that the card is properly seated in the card socket as shown below.



Carefully fold down the silver retaining clip so that it is flat against the MicroSD card. Slide the silver retaining clip towards the FPGA processor/fan assembly making sure that the MicroSD card does not slip or move in the socket. This will lock the MicroSD card in the card socket as shown below. Failure to seat the card properly will result in the card not making proper contact with the card socket's electrical contacts causing the radio to fail to boot up.



Installing the Kapton Tape over the MicroSD Card Socket

To prevent the retaining clip from coming unlatched when the radio is shipped, place a strip of Kapton tape over the top of the MicroSD card socket as shown below.



Reinstall RF Isolation cover

Note: Before reinstalling the RF Isolation cover, you may want to boot the radio to ensure that the new MicroSD card is installed properly. Be very careful when booting the radio with the chassis and RF Isolation covers removed. You can also clean the small CPU and FPGA cooling fans using compressed air. Please use a non-metallic object like a wooden toothpick to prevent the fans from turning while being cleaned. Over spinning the fans can damage the bearings.

Reinstall the RF Isolation cover. Make sure that the RF Isolation cover is inserted properly in the RF shield housing's retaining tabs. It is best to insert the cover on the side of the housing underneath the side of the chassis first and then gently press down on the side facing away from the chassis. Starting at one corner ensure that the cover is between the alternating rows of "teeth" is recommended to ensure the cover is aligned properly. Once installed it should look like the image below.

NOTE: If you experience difficulty getting the RF shield cover re-seated, especially the side nearest to the side of the radio, it may be easier to remove the side of the radio, install the RF shield cover and then replace the side of the radio.



Reinstalling the Bottom Cover

Replace the bottom chassis cover on the FLEX-6000. Orient the cover so that the row of vent holes on the bottom cover are on top of the side fans towards the front of the FLEX-6000 as shown below.



After reinstalling the bottom cover install the six (6) stainless steel (silver) **Bottom Cover screws** using the long portion of the #8 TORX wrench. The image below shows the installation of the Bottom Cover screws.



Using the long portion of the #8 TORX wrench install the three (3) short **Bottom Cover Side screws** on the **left** side of the FLEX-6000. Then install the remaining three (3) short Bottom Cover Side screws on the **right** side of the FLEX-6000. The image below shows the installation of the left side bottom Cover Side screws.



Reinstalling the Chassis Feet

Reinstall the four (4) feet on the chassis using a #2 Phillips screwdriver as shown in the image below.



The finished re-installation of the bottom cover and chassis feet should look like the image shown below.

