

Welcome to the collar configuration and setup suite. Please follow these instructions carefully to configure and setup your collar correctly.

1) The first step is to verify that the CF2 is operating properly. This is done by connecting the appropriate serial cable to the collar hardware using the 8mm “stereo headphone jack” connection. The other end of the cable should be plugged into the serial “com” port of the computer. Using a terminal emulation program ([Motocross](#)), check that you get a prompt when power is applied to the CF2/GPS power connection on the collar hardware. A valid prompt means the CF2 is operating correctly.

2) Once the user has verified the CF2 is operating correctly, the next step is to check the GPS receiver. This is currently done through the GPS configuration board. To do this, connect a serial cable between the GPS configuration board and the “com” serial port on the computer. Make sure all terminal emulation (Motocross) programs are closed. Connect the bundle of wires from the GPS Configuration board to the collar hardware noting that the black wire denotes “GROUND” as marked on the collar PCB. Then connect the GPS antenna to the appropriate connector. Be sure this antenna has a clear view of the sky. Once the connections are made, apply power to the CF2/GPS main power of the collar hardware. Then start the [Antaris GPS](#) software. Watch to see that a GPS fix is obtained. This should take no longer than a minute or two, and invalid fixes should be seen in the mean time. These can be viewed in the “View/Messages View” terminal of the program.

3) If the GPS is working correctly, then the user can configure the GPS Receiver for use in the Clark ATS. This is done by going to the “Tools” menu of the [Antaris](#) software. Choose “GPS Configuration” and a GUI will come up with a few buttons. First, click on the Browse button to navigate to the configuration file. This button is indicated with a “...”. Browse to the folder that contains this document (the one you are reading) and click on the file named “GPS\_Configuration.txt”. Then click on the button labeled “File>>GPS”. This will configure the GPS Receiver. If it is configured successfully, there will be no error messages while loading this file. Disconnect power to reset everything.

4) Once the GPS Receiver is configured, the user can proceed to set up the rest of the collar. First, disconnect the GPS Configuration board from everything and put it away. Then, reconnect the Clark ATS Collar hardware to the computer (as described in step 1 with the “stereo headphone jack”). At this time, be sure a new Compact Flash card is inserted into the slot on the CF2. Open the terminal emulator program ([Motocross](#)). Reapply power to the CF2/GPS main power connection. At the prompt, type “format←” (Where ← represents the key “Enter”). Then type “Yes←” to the prompt indicating that this will erase all data on the card. Formatting the card ensures that there will be no errors while setting up the collar.

5) When the card is done formatting, proceed to load the Radio Configuration program onto the collar. This is done by selecting the “Transfer” menu in the terminal emulator ([Motocross](#), shortcut F7) program. In the “Load” interface, browse to the folder

containing this document. In it, double-click on the file named "CollarConfig.RUN". This should start loading the configuration program on the collar. This can take several minutes. Once the program is loaded, you will be returned to the prompt in the terminal emulator program. At this prompt, type "GS CONFIG←". Sometimes the "G" will already be at the prompt, sometimes it won't. Just be sure that the prompt reads "GS CONFIG" before pressing "Enter".

6) The configuration program should save fairly quickly. Once the prompt returns, run the configuration program by typing "CONFIG←" at the prompt. The program will cycle through baud rates until it can communicate with the radio. It will prompt the user to input all the timing characteristics of the system. That is, it will ask when the user wants the collar to start gathering data. This is useful to allow the user to setup the collar several days before they will go into the field. Then it will prompt for the duty cycles of the GPS and the NMEA Beacon. Finally, it will ask when the user wants the collar to cease gathering data. This creates a file named "time.txt" that the user can edit anytime to alter any of these parameters.

7) The program will finish and reset the radio. If the user does not want to test the radio, skip to instruction 8. Connect the proper antenna to the radio. Now load the radio test program. This is done EXACTLY the same way as described in instruction 5, only load the file named "RadTest.RUN". After the file is loaded on the CF2, type "GS RADTEST←". Once the program is saved, type "RADTEST←" at the prompt. The program will indicate what it is doing at this time. This program simply transmits a short message over the radio. Please connect a base-station radio and verify that data is transmitted correctly. To stop the program, simply disconnect, and then reconnect power to the CF2/GPS. Please erase the program after the radio is verified by typing "erase RADTEST.pxe" at the prompt.

8) Now the user is ready to load the main program onto the Clark ATS Collar. There are currently two program options. The first uses the Remote Drop Off FET (RDO) to control the Remote Drop Off mechanism. This will activate the RDO at the date and time specified in the "time.txt" file. To use this program, load the file named "CollarRDO.APP" using the "Transfer/Load" interface of the terminal emulator ([Motocross](#)) program. The second option is to use the RDO FET to control a secondary UHF transmitter. This will activate the external UHF transmitter while the collar hardware is sleeping, and shut down the UHF transmitter while the collar is awake. This helps to avoid Radio Frequency interference and conserve power. To use this program, load the file named "Collar.APP" using the "Transfer/Load" interface of the terminal emulator ([Motocross](#)) program.

9) When the program is finished loading (Which can take several minutes), the collar is ready to go. Simply type "BOOT APP←" at the prompt. Wait to see the program start, and kill the power. The next time power is applied, the program will automatically run. The next time power is connect to the collar, be sure the following conditions are met:

- a) All antennas are appropriately connected.

b) The GPS Antenna has a clear view of the sky for AT LEAST ten minutes following the application of power to the system.