

**ATS**  
**W300 Wildlink-GTX Collar**

***User's Manual***

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## **Section 1 Introduction**

Thank you for purchasing the W300 Wildlink-GTX Collar. Your collar should have been programmed with a predetermined schedule. This schedule should have been created when the collar was purchased. The schedule includes the desired GPS fix times, and whether or not mortality is to be enabled and if so the duration of the mortality before the collar transmits a corresponding mortality alert. If you do not believe you have discussed this schedule with ATS, please contact ATS immediately to get this resolved.

## **Section 2 Theory of Operation**

The W300 consists of 5 different assemblies

- 1) The collar belting and attachment mechanism
- 2) A potted electronics assembly
- 3) A potted battery pack assembly
- 4) A GPS receiver system and
- 5) A Globalstar satellite transmission system.

The collar belting provides a means of attaching the collar to an animal. Ideally, the circumference of the collar will be selected such that the antennas of the potted electronics assembly are facing up towards the sky versus facing sideways towards the horizon.

The potted electronics assembly consists of the microcontroller used to control the system, the on-off mechanism that enables/disables the collar, an accelerometer that notifies the microcontroller whenever a movement is detected, and a memory chip that saves GPS data.

The GPS receiver system is contained within the potted electronics assembly. It includes a GPS receiver chip and a GPS antenna.

The Globalstar satellite transmission system is also contained within the potted electronics assembly and contains a Globalstar Simplex device for transmitting one way data and also a satellite antenna for the Globalstar frequency range (~1616 MHz).

## **Section 3 Enabling the Unit**

The W300 Wildlink-GTX Collar ships in an inactive/off state. To enable/turn on the collar, remove the magnet that is attached to the upper potted assembly. (The magnet may be attached with electrical tape.) Once you have removed the magnet, the collar should start operating immediately according to the desired schedule.

When operation is not desired i.e. to save on battery life, place the magnet back in the original location on the two white/silver dots (see figure below).



Figure 1. Magnet placement to turn off the collar.

#### **Section 4 Collar Attachment**

The size of the W300 collar is determined by selecting different sets of holes for the collar adjustment bracket to go through. The W300 provides a certain range of sizing options. This range allows optimum operation of the collar. Going outside of this range by not using the provided attachment holes may drastically affect performance. To adjust the collar and/or attach the collar to an animal, the procedure is as follows (see Figure 2 for illustration):

1. First remove the collar adjustment bracket nuts and plate from the collar adjustment bracket. Keep the collar adjustment bracket in the short flap of the collar.
2. Wrap the collar around the animal's neck and into place.
3. Observe the set of holes on the adjustment flap that line up best with the adjustment bracket such as to maintain a desired tension level on the animal's neck.
4. Place the collar attachment bracket through the adjustment flap and through the brass bracket and tighten the collar adjustment bracket nuts using the provided nut driver. Do not over-tighten as this may damage the collar adjustment bracket.
5. Finally ensure that the case nuts and squib nuts have been tightened before releasing the animal.

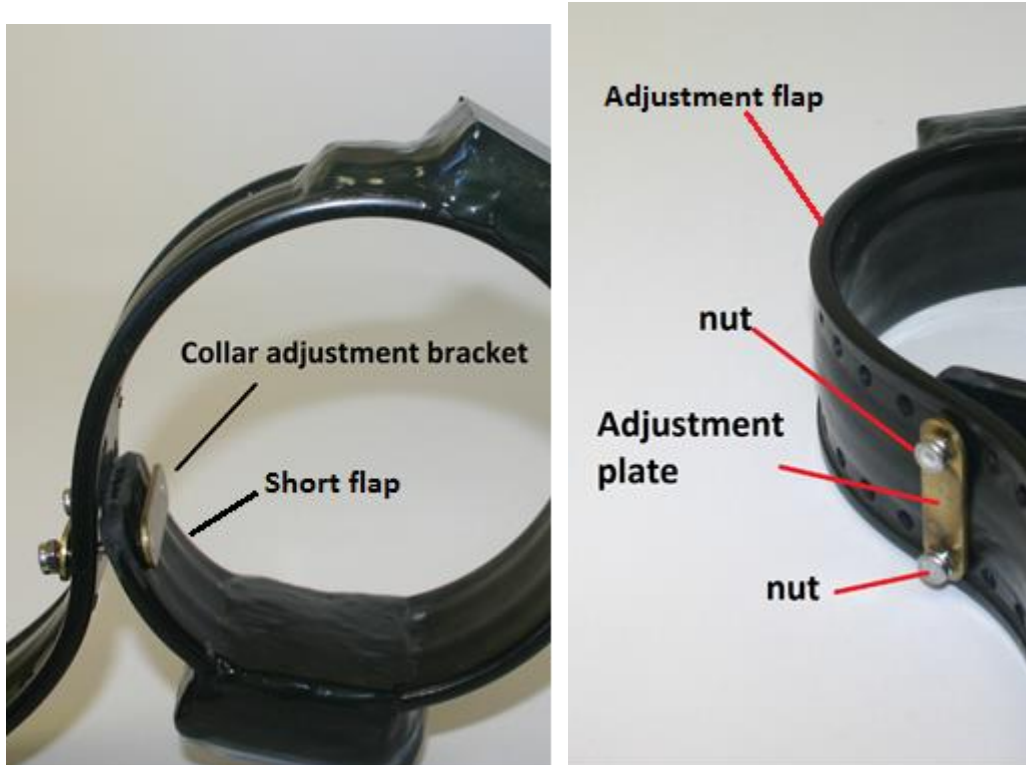


Figure 3. Collar adjustment hardware

## **Section 5 GPS Operation**

The W300 takes a GPS fix two times a day with fix times predetermined and spaced twelve hours apart. A GPS fix may last as long as 180 seconds. Successful fixes are stored in memory so that they can be transmitted to ATS servers via the Globalstar system at a later time. Once ATS receives the data, it is placed in the following csv form:

Serial Number, Year, Julian Day, Hour, Latitude, Longitude, HDOP, Number of GPS satellites, GPS on time, and Fix dimension.

The data for the collar is available via website at the following address: [www.atsdat.com](http://www.atsdat.com).

The website requires a username and password. If you do not know what your username and/or password is, please contact ATS.

## **Section 6 Satellite Transmission**

The W300 transmits data on the Globalstar satellite system using a Globalstar simplex device (carrier frequency 1611.25 and 1616.25 MHz). The antenna the W300 uses is a patch antenna situated at the top of the potted electronics assembly. The W300 will attempt to transmit any set of data at least three times due to possible cover and animal orientation issues.

The hour of the transmission is based on the serial number of the collar. The hour (in GMT) of the transmission is the remainder of the following division operation:

$NN \div 24$ , where NN is the last two digits of the serial number.

For example, the transmission hour for serial number 012345 would be 2100 GMT. That means the collar would be expected to transmit data between 2100 and 2200 GMT.

All transmitted data is available via website [www.atsdat.com](http://www.atsdat.com) using an ATS supplied username and password.

## **Section 7 Regulatory**

FCC ID: TZF-W300

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**WARNING:** Changes or modifications not expressly approved by Globalstar may render the device non-compliant to FCC and other regulatory body standards for operation and may void the user's authority to operate the equipment.

IC: 7659A-W300

This device complies with IC RSS-170.

This device complies with ICES-003.

*This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.*

*Cet appareil est conforme à la norme RSS Industrie Canada exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences pouvant causer un mauvais fonctionnement du dispositif.*

## **Section 8 Warranty and Service**

The W300 is warrantied for one year from the time of shipment.

Should you encounter any difficulty during operation of your collar, please contact ATS Sales and Service at 763.444.9267 during normal business hours. This and other ATS User Manuals are available for download from the ATS website, at [www.atstrack.com](http://www.atstrack.com).