Pile of install notes from various versions and nonsense

Fresh install of raspbian update debian

Sudo apt-get update

Sudo apt-get upgrade

Sudo apt-get dist-upgrade

Install teamviewer if you're into that

What worked was install version 13 and then apt update/grade

Sudo dpkg -i teamviewer.deb

Sudo apt --fix-broken install

sudo apt-get install xrdp – for remote desktop

**Enable the UART**

By default the UART is enabled to allow you to connect a terminal window and login, I needed to disable this to free it up for the GPS Module.

Might need this?

https://learn.adafruit.com/adafruit-nfc-rfid-on-raspberry-pi/freeing-uart-on-the-pi

Edit the boot options to change the UART so it doesn't provide a terminal connection by default:

# Step One: Edit /boot/cmdline.txt

Next, enter the following command from the command line:

[Copy Code](https://learn.adafruit.com/adafruit-ultimate-gps-on-the-raspberry-pi/using-uart-instead-of-usb#)

1. $ sudo nano /boot/cmdline.txt

And change:

**dwc\_otg.lpm\_enable=0 console=ttyAMA0,115200 kgdboc=ttyAMA0,115200 console=tty1 root=/dev/mmcblk0p2 rootfstype=ext4 elevator=deadline rootwait**

to:

**dwc\_otg.lpm\_enable=0 console=tty1 root=/dev/mmcblk0p2 rootfstype=ext4 elevator=deadline rootwait**

(eg, remove console=ttyAMA0,115200 and if there, kgdboc=ttyAMA0,115200)

**Note you might see console=serial0,115200 or console=ttyS0,115200 and should remove those parts of the line if present.**

## Raspbian Wheezy only

## Step Two: Edit /etc/inittab

From the command prompt enter the following command:

[Copy Code](https://learn.adafruit.com/adafruit-ultimate-gps-on-the-raspberry-pi/using-uart-instead-of-usb#)

1. $ sudo nano /etc/inittab

And change:

**#Spawn a getty on Raspberry Pi serial line**

**T0:23:respawn:/sbin/getty -L ttyAMA0 115200 vt100**

to:

**#Spawn a getty on Raspberry Pi serial line**

**#T0:23:respawn:/sbin/getty -L ttyAMA0 115200 vt100**

That is, **add a #** to the beginning of the line!

## Raspbian Jessie

## Step Two:

For the **Raspberry Pi 1 or 2** (but **NOT** the 3!) Run the following two commands to stop and disable the tty service:

[Copy Code](https://learn.adafruit.com/adafruit-ultimate-gps-on-the-raspberry-pi/using-uart-instead-of-usb#)

1. sudo systemctl stop serial-getty@ttyAMA0.service
2. sudo systemctl disable serial-getty@ttyAMA0.service

However for the **Raspberry Pi 3** you need to use the **/dev/ttyS0** port since that is what is normally connected to the GPIO serial port pins. Use these two commands instead:

[Copy Code](https://learn.adafruit.com/adafruit-ultimate-gps-on-the-raspberry-pi/using-uart-instead-of-usb#)

1. sudo systemctl stop serial-getty@ttyS0.service
2. sudo systemctl disable serial-getty@ttyS0.service

# Step Three: Raspberry Pi 3 Only

**For the Raspberry Pi 3** you need to explicitly enable the serial port on the GPIO pins. The reason for this is a change with the Pi 3 to use the hardware serial port for Bluetooth and instead use a slightly different software serial port for the GPIO pins. A side effect of this change is that the serial port will actually change speed as the Pi CPU clock throttles up and down--this will unfortunately cause problems for most serial devices like GPS receivers!

Luckily there's an easy fix detailed in [this excellet blog post](http://spellfoundry.com/2016/05/29/configuring-gpio-serial-port-raspbian-jessie-including-pi-3) to force the Pi CPU into a fixed frequency which prevents speed changes on the serial port. The Pi might not perform as well but it will have a stable serial port speed.

To make this change edit the **/boot/config.txt** file by running:

[Copy Code](https://learn.adafruit.com/adafruit-ultimate-gps-on-the-raspberry-pi/using-uart-instead-of-usb#)

1. sudo nano /boot/config.txt

At the very bottom of the file add this on a new line:

[Copy Code](https://learn.adafruit.com/adafruit-ultimate-gps-on-the-raspberry-pi/using-uart-instead-of-usb#)

1. enable\_uart=1

Save the file (press **Ctrl-O**, then enter) and exit (press **Ctrl-X**). You're all set!

**Install GPSD**  
GPSD is an open source project which provides a daemon which streams GPS data via a TCP socket, allowing you to communicate with a whole host of different GPS devices (not just this one):  
  
sudo apt-get install gpsd gpsd-clients python-gps

**For test Run gpsd**  
GPSD needs to be started up, using the following command:  
  
sudo gpsd /dev/ttyAMA0 -F /var/run/gpsd.sock  
if testing and need to reset

sudo killall gpsd

sudo gpsd /dev/ttyAMA0 -F /var/run/gpsd.sock

engabe cgps autorun at startup   
run   
sudo dpkg-reconfigure -plow gpsd

to configure auto startup

Settings

Edit /etc/default/gpsd

Device = /dev/ttyAMA0

1 - /dev/ttyAMA0

2 - /dev/ttyAMA0

3 - /var/run/gpsd.sock

Install audio

1. sudo apt-get update
2. sudo apt-get install alsa-utils mpg123
3. sudo reboot

set up 3.5 jack and load drivers and

1. sudo modprobe snd\_bcm2835
2. sudo amixer cset numid=3 1

install wireless software and configure  
 # sudo apt-get install wicd-curses

# sudo wicd-curses

gui interface

sudo apt-get install wicd-gtk

upstart

<http://infovore.org/archives/2013/08/09/running-scripts-on-startup-with-your-raspberry-pi/>

copy adagps.conf to init

install python package:

sudo pip install utm

alsamixer – graphical interface to set volume.

amixer set PCM 86% - set volume

<http://blog.scphillips.com/posts/2013/01/sound-configuration-on-raspberry-pi-with-alsa>

~~set up ssh key   
sudo ssh-keygen -t rsa  
  
will have to change ssh port /etc/ssh config to 666 to connet then change back.   
copy key to server  
sudo ssh-copy-id~~ [~~busdump@space—x-x-x-x.noip.me~~](mailto:busdump@spacefighter.noip.me)

~~password for when running sync.sh is “squawk”~~

For checking available space   
sudo mount --bind / /mnt  
sudo ncdu -x /mnt

To edit logrotate

/etv/logrotate.d

Edit rsyslog to daily with 4 rotations

gpsd:Error: /dev/ttyama0 device activation failed

Gpsd error device open failed device or resource busy - retrying read only

Teamviewer update

Remove old

wget -O - https://download.teamviewer.com/download/linux/signature/TeamViewer2017.asc | apt-key add -

apt update

apt upgrade  
  
sudo apt-get install libqt5gui5 libqt5qml5 libqt5quick5 libqt5webkit5 libqt5qml5 libqt5core5a qml-module-qtquick-controls qml-module-qtquick2 libqt5widgets5

Setup Git Clone files from github

git clone https://github.com/asumbus/Squawk.git /home/pi/Desktop

New startup

Copy config to /lib/systemd/system

sudo systemctl daemon-reload

sudo systemctl enable adagps.service  
sudo systemctl enable adasync.service

Check status

systemctl status adagps.service

Edit Wifi

etc/wpa\_supplicants