GoDRIvE ATARi ST

Atari ST line Floppy drive emulator compatible with 520/1040 STfm/STe models

(Might be compatible with other models – check fitting appendix at the end of this guide*)





GoDRIvE ATARi ST is a complete solution for an ATARI ST line computers.

- It will let you keep original FDD in place and have a Floppy drive emulator
- Both FDD and GoDRIvE act as a DRIVE A: and you can either use FDD or GoDRIvE but **NOT** both in the same time
- You can switch between them on the go: giving posibility to copy Floppy disks to .ST images or vice versa
- Buzzer with amplifying circuit to emulate disk drive sounds (FF.cfg adjustable)
- No modification to case needed
- Breakout box with all neccesary features (1.3 OLED screen, rotary encoder, USB socket, LED activity light and drive selector)
- Running the most popular FlashFloppy firmware, thanks to Keir Fraser. https://github.com/keirf/flashfloppy – strongly recommend to visit his page for the latest firmware updates, "FF" config guide and to donate his hard work



GoDRIvE ATARi ST Set:

GoDRIvE ATARi ST Set includes:

- GoDRIvE main board with 2 plasic stand offs on each end
- Breakout Box
- FFC ribbon cable
- FDD Power cable
- 34pin FDD data cable
- 1x M3 screw

FITTING MANUAL:

1. Turn your ATARI ST upside down and remove 7 screws as shown in the photo below (top 4 are longer than 3 on bottom)



- 2. Turn your ATARI back again to remove top cover, lift right side first, this will let you remove cover as it wedges aroung FDD eject disk button and load disk slot frame.
- 3. Once top cover is removed, lift keybord to unplug keyboard connector as on the photo below.



4. Locate cover behind FDD hiding FDD power and data cable, remove 2 screws as shown on the photo below and remove cover, you don't need it anymore.



5. Unplug 34pin data cable and 4pin power cable from your Disk drive



- 6. for fitting convenience it's recommended to remove FDD (to hide 34pin data cable underneath)
- 7. Turn machine up side down and remove 3 indicated screws.



- 8. Turn your machine back again (FDD should stay on desk/floor) this will give you comfortable space to fit GoDRIvE now.
- 9. Now it's turn to get your GoDRIvE mainboard PCB and connect it to the 34pin on board FDD data cable and 4pin on board power cable as shown on the photo below (it can't be connected wrong way round)



10. Now it's time to mount GoDRIvE PCB, re-use FDD cover screw on top, and longer M3 screw provided on bottom, fold FDD 34pin data cable as shown on the photo



- 11. Now it's time to fit back your FDD, but before you do it, connect 34pin short data cable and 4pin power cable provided (note where is PIN 1 in your FDD socket)
- 12. Time to screw FDD back, it can be bit tricky but with little care shouldn't take long (don't forget about a location pin in top right hand corner) and 3 screw underneath.
- 13. Once done, plug 34pin data cable and 4pin power cable to GoDRIvE main board like on the photo.



14. Now it's time to connect FFC ribon cable to breakout box first, to do so you need to pull brown tab on 20pin FFC connector located underneath the brakout box, like on photo below. (picture showing tab open)



15. Connect FFC ribbon cable, blue side up and lock back brown tab as on the photo below (make sure its pushed right to the end and blue strip looks parallel to the socket.



- 16. Now it's time to locate place where breakout box gonna be fitted on the top case.
- 17. Due to the nature of Atari vents going diagonally, GoDRIvE brekout box is equipped with 4 locating prongs and 4 double sided gel strips to secure it(completly not invasive). Without these gel strips, brekout box would slide diagonally.
- 18. Time to locate where to feed FFC ribbon cable throught vent holes, as shown in the photo below, but It's entirely up to you where you want to put it within a reach of the FFC connector on GoDRIvE main PCB.



- 19. Now it's time to place your brekout box within area to make sure FFC ribbon cable is hidden (without removing red stips) make sure all 4 prongs should go to see-thru area, not blank ones, as prongs have a little notches.
- 20. Once you happy with breakout box placement, it's time for a quick test (before breakout box gonna be finally secured on the top case) or If you happy with all connections, remove red stips (bit tricky) and secure your breakout box, if not leave it till the end, after full test.
- 21. Place top cover close enough to connect other side of FFC ribbon cable to the GoDRIvE main board as shown on the photo below (don't forget to pull brown tab first, fit ribbon cable blue side towards tab and lock it back)



22. Time for a quick test, place your top cover temporarily on top of the Atari, connect your power and video cable, and power machine on, you should be greeted with FlashFloppy text displayed on breakout box screen, now press rotary encoder to enter menu and dial to see if it works (changes options on screen). Once that done, you can proceed to check if GoDRIvE loads .ST images correctly and select drives correctly (FDD and GoDRIvE)

PREPARATION AND OPERATE THE GoDRIvE EMULATOR

- It should work with any USB stick as long as its FAT32 formatted
- For full compatibility list check what FlashFloppy firmware can handle <u>https://github.com/keirf/flashfloppy?tab=readme-ov-file</u>
- Download couple of .ST image files to check full operation of your GoDRIvE
- They can be stored in folders, or directly in to the root of USB stick
- once placed in to breakout box, it should display files and/or folders (Folders first)
 you can choose files by rotating knob on the top of the breakout box(You don't
- have to confirm it). To enter directory, you need to press knob to select it.
- Switch to G mode (GoDRIvE) and try to load any desired .ST image, if it loads correctly, try to do the same with F mode (FDD)
- You can easily copy your .ST image to Floppy disk using any copy solution(load disk to memory, switch drive selector, and store it) or vice versa by loading floppy disk and then switching it to any existing .ST image and rename it afterwards in your PC/Mac

There are a couple of simple rules, how to operate drive selection - (G->F and vice versa) on the go.

When switching devices (G->F) it's recommended to insert Floppy disk after drive selection or re-insert it, if disk was present in the drive. Same with GoDRIvE (swap to other image) as computer need to sense new disk insertion
 All windows previously opened need to be closed before switching to other device(G->F or F->G) If not done, need to return to previously used device and close it.

Once you happy with the results, you can now secure your breakout box in plece, if you've not done it yet (remove red strips on double sided gel tape)



Time to screw your top case back, don't forget there's 2 type's of screw's 4 longer ones going on the back ports side, 3 shorter ones from the keyboard side!

Now you can enjoy your GoDRIvE :)

Fitting requirements appendix*

Pictures below showing cover behind the Floppy drive where GoDRIvE should be fitted,

These covers my vary from different Atari models/revisions but if below measurement are meet, GoDRIvE should fit





Digital Retro Bay 2024 (C)