

TIVO UPGRADE INSTRUCTIONS

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Instructions for add or dual drive upgrade for Hughes HDVR2

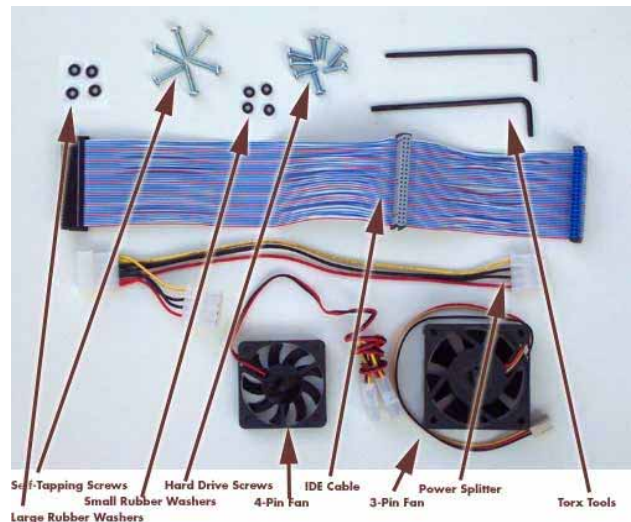
A FEW WORDS OF CAUTION:

First and foremost, please be aware that upgrading a TiVo presents a few physical hazards. As with most consumer electronics devices, components in the TiVo may still carry a lethal charge, even after disconnecting from your power supply. Be aware of this while working inside your TiVo. Allow sufficient time for discharging of components and avoid contact as much as possible with potential hazards. While we have done everything we can to provide accurate, easy-to-follow instructions, we cannot be responsible for any damage done to your TiVo or to yourself as a result of your upgrade. By opening your TiVo, you agree that neither Adberg Consulting LLC nor any of its members or affiliates is responsible in any way for any harm done. Please be VERY careful when upgrading. NEVER open the TiVo while the unit is plugged in and NEVER operate the TiVo if the lid is not securely fastened.

Please Note: Opening the TiVo voids the warranty.

THIS KIT INCLUDES:

- 2 Self-tapping screws (for bracket)
 - 8 Hard drive screws
 - 1 Torx T10 screwdriver
 - 1 Torx T15 screwdriver
 - 1 Hard drive IDE ribbon cable
 - 1 Hard drive power splitter cable
 - 1 Set of upgrade instructions (not shown)
 - 1 WeaKnees.com TwinBreeze Complete
- TWINBREEZE COMPLETE ALSO INCLUDES:
- 4 Self-tapping screws (for bracket fan)
 - 4 Small rubber washers (for bracket fan)
 - 4 Large rubber washers (for case fan)
 - 1 Bracket fan with 4-pin hard-drive connector
 - 1 Case fan with 3-pin motherboard connector



1. OPENING THE TIVO

Unplug the power cord from the TiVo and wait five minutes for the TiVo to discharge. Do not plug the TiVo back in until you are completely finished. Be very careful of static electricity, which can destroy your TiVo's internal parts. You shouldn't perform this upgrade on carpet.

Using the smaller Torx screwdriver included in your kit, unscrew the four Torx screws on the back of your TiVo. The four screws are surrounded by silver from the top of the TiVo's case. Once the four screws are removed, remove the lid by pushing it back about 1/2 of an inch toward the back of the TiVo and then lift the lid up and off.



2. DISCONNECTING THE EXISTING DRIVE BAY

With the cover off and looking to the front-right of the TiVo, you will be able to see (1) one hard drive, (2) a gray IDE ribbon cable that runs from the greenish motherboard to the hard drive, and (3) a multi-colored (red, black, yellow) drive power cable that runs from the power supply to the hard drive. Remove the power cable and gray IDE ribbon cable from the hard drive. Also, remove the ribbon cable from the motherboard. You will not re-use this cable, but you should keep it. CAUTION: When removing the power cable and IDE cable from the hard drive, be very careful not to jar or dislodge the front panel ribbon cable running from the front of the TiVo to the motherboard.

Using your Torx screwdriver, unscrew and remove the two screws that connect the hard drive bracket to the lower bracket (part of the bottom of the unit). These screws are located at the front-right of the TiVo. As you look down into the TiVo, you will see the two screw heads. Once the screws are removed, you will be able to slide the drive and bracket toward the power supply and up and out of the TiVo.



3. REMOVING THE EXISTING DRIVE

Once the hard drive and bracket are out of the TiVo, unscrew the four Torx drive screws that connect the hard drive to the hard drive bracket. You will not re-use these four screws or the metal drive bracket, but you should save the screws and bracket, together with the ribbon cable you removed.



4. CONNECTING THE HARD DRIVES TO THE DRIVE BRACKET

Using four of the hard drive screws included with your kit, connect the existing, factory drive (the one you removed from your TiVo) to the new hard drive bracket (or new Master "A" drive for dual-drive upgrades). Be sure to orient the drive as shown in the picture. When the drive is connected and screwed in properly, the back of the drive will be flush with the edge of the bracket and will not hang off. Do not overtighten the screws. Connect your new upgrade drive (or "B" drive) to the drive bracket using the remaining four hard drive screws. Be sure to orient the drive on the bracket as shown in the picture. The drive should be connected so that the drive IDE and power connector pins are facing the center of the bracket. Do not overtighten the screws.



5. ATTACHING THE IDE CABLE TO BOTH DRIVES

Take the IDE cable included with your kit and drop the blue connector through the hole in front of the new drive. With the blue connector hanging below the bracket, connect the gray connector to the new drive (or "B" drive). Be careful to insert the cable in the proper direction – each connector on the cable has two grooves that align to ensure it is not installed upside-down. Now connect the black connector into the factory hard drive (or new "A" drive for dual-drive upgrades). (Technical Note: In the picture at the right, the MASTER drive is on the right; the SLAVE drive is on the left.)

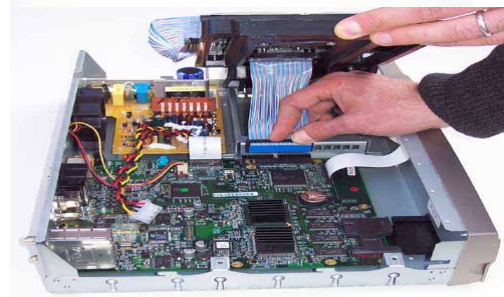


6. INSTALLING THE HARD DRIVE BRACKET INTO THE TIVO

Grip the bracket with one hand through the circular hole at the end of the bracket. Locate the tab on the hard drive bracket at the end opposite the round hole. With the drive labels facing up, tuck the bracket tab underneath the metal drive housing in the TiVo, as shown in the picture. (Note: The picture at right is taken from the *side* of the TiVo. Note the location of the power supply and the drive bracket.)



Continue holding the bracket with one hand through the round hole. With the tab still underneath the metal drive housing, lift the bracket up. Using your other hand, reach underneath the bracket and carefully connect the blue IDE ribbon connector to the black connector on the motherboard. (Note: The picture at right is taken from the *opposite* side of the TiVo from the picture above.) Now lower the bracket down. Be sure that the TiVo's red/yellow/black drive power cable not caught under the bracket as you lower it into place.



NOTE: Watch the white front panel ribbon cable that comes up from the motherboard and goes into the front panel of the TiVo. This cable **MUST** be firmly seated in the motherboard, otherwise you can do irreparable damage to your TiVo. Make sure this cable is fully down, and square, and that you don't see any of the metallic contacts on the bottom of this cable.

7. ATTACHING THE BRACKET AND POWER CABLE

Using two self-tapping screws, attach the bracket to the TiVo. The screws will be cutting threads through the metal TiVo case, so a bit of force might be necessary. Do not overtighten the screws. Connect the red/yellow/black Y-power splitter cable (included with your kit) to the existing TiVo power cable. Then connect the short end of the Y-power splitter into the drive marked "A" in the picture at right. Connect the long end of the power cable into the drive marked "B" in the picture at right.



8. CONNECTING THE OPTIONAL BRACKET FAN

(If your kit included a bracket fan.) If your kit included two fans, the bracket fan is the smaller of the two fans, and has two connectors that are the same style as the hard drive connectors you used above. Once you have located the fan, look at the edges of the fan until you locate the air directional arrows. Now insert four self-tapping screws into the four fan holes. The screws should be inserted in the same direction as the fan airflow. Once you have the four screws through the fan holes, screw a rubber washer onto the end of each screw. You need only turn each washer one or two turns.

Place the fan on the bracket so that the fan cable is close to the drive. Screw in the four fan until they are tight; do not overtighten.

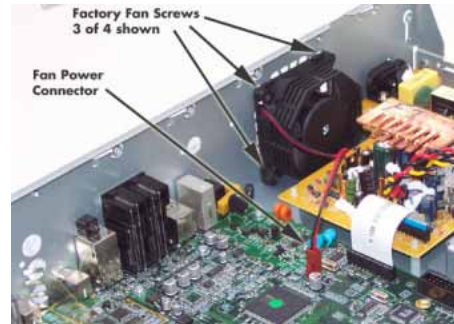
Unplug the power connector from the hard drive closer to the fan, and plug the removed connector into the fan connector. Now plug the other end of the fan connector into the hard drive. Tuck the cables down and away from the power supply.



9. CONNECTING THE OPTIONAL CASE FAN

Locate and remove the factory fan cable from the TiVo's motherboard. Pull the fan power connector straight up and out. You can locate the connector by following the wire from the fan (which is mounted at the back of the TiVo) to the motherboard.

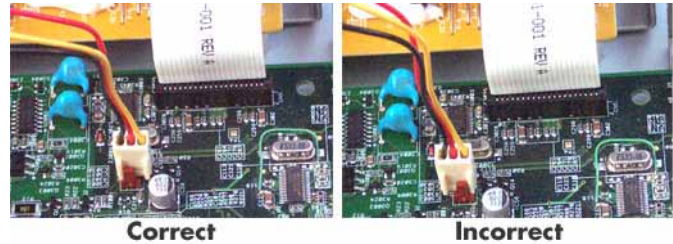
Using the Torx screwdriver included with your kit, unscrew the four screws on the back of the TiVo that are holding the fan in place.



Using the same screws that you removed from the factory fan, push each screw through the holes. Insert one of the large rubber washers on each fan screw (these fit tightly, so you will have to actually screw the washer onto the screw). Locate the air flow directional arrows on the new fan and place the new fan in the TiVo so that the screwholes are aligned and so that the air is flowing out of the TiVo. The screws you are using will be cutting threads in the new fan, so a bit of force may be necessary. DO NOT fully tighten any of the screws until you have partially screwed in all four screws. You may need to use one hand to hold the fan in place while you screw in the screws.



Attach the fan connector to the motherboard. You will notice that the fan has three wires—red, black, and yellow. The yellow wire is NOT used, so you must connect the fan as shown in the diagram. The two pins on the motherboard should be connected to the red and black fan wires. The yellow wire will hang over the connector. If you connect the fan incorrectly, it will not power up.



10. RE-ATTACHING THE TIVO LID

Place the TiVo lid back over the TiVo. Align the clips on each side of the lid so that they clip down on the sides of your TiVo. Slide the lid toward you while simultaneously pushing down on the top of the lid. Once the lid is in place, reattach the four Torx screws. Plug in your TiVo and enjoy!



We thank you very much for your purchase and hope that you enjoy your newly-enhanced TiVo. Please [email us](mailto:weaknees.com) with any comments, suggestions or complaints. If you found the upgrade easy to install (or even if you found it more difficult than you expected), we'd love to know. If you found our service to be excellent (or awful), we want to know that too. We're always looking to improve our products and services...the more we hear from you, the better. Thanks very much!