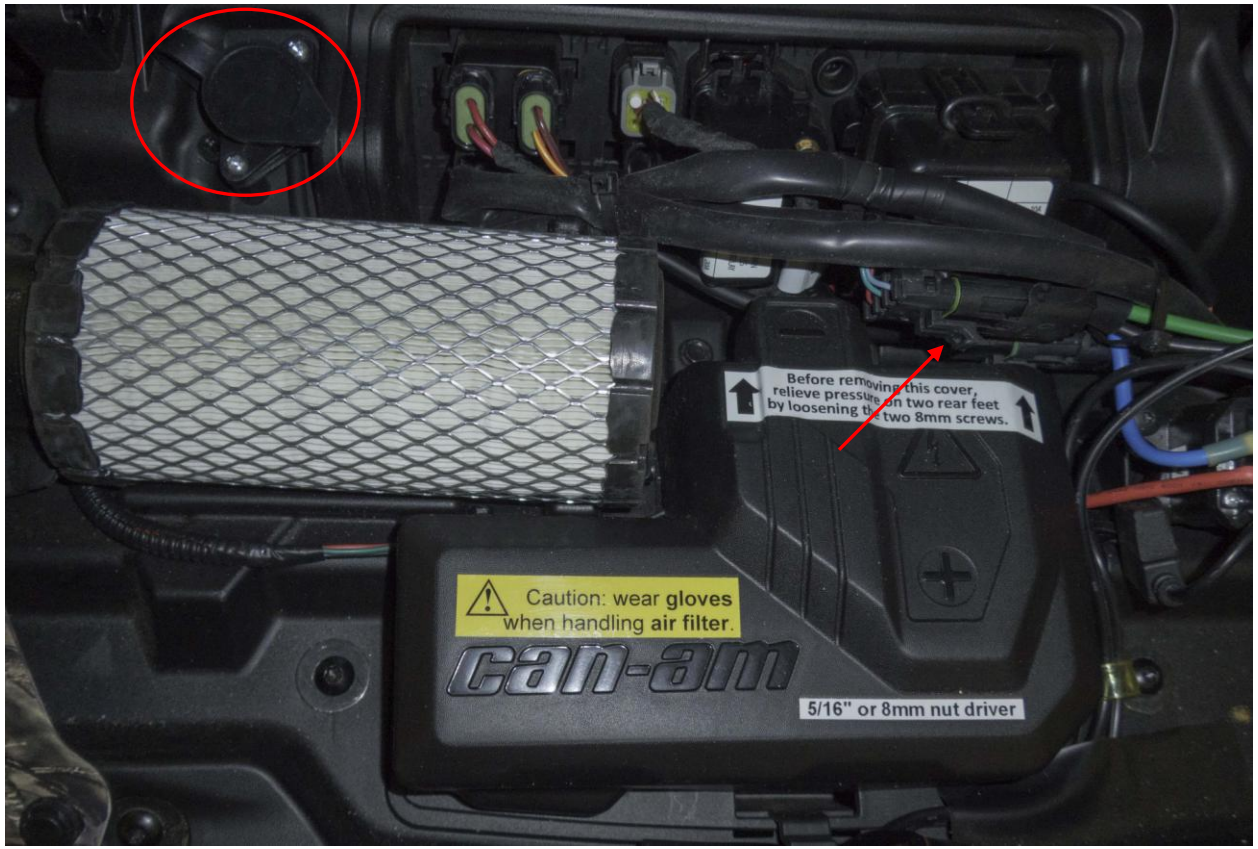
End result

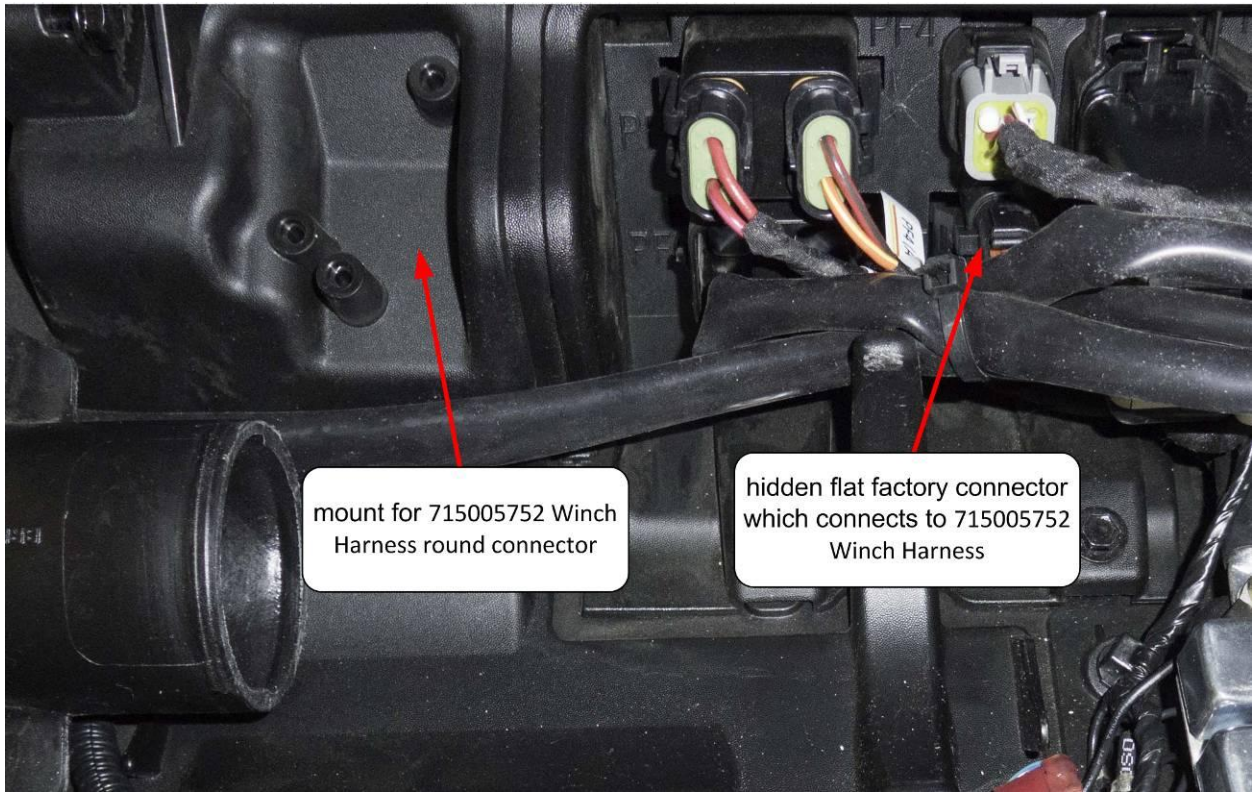
o The end result is a wired remote control for the factory-provided Can-Am HD 4500 winch. All parts are Can-Am. No soldering is required but one connector must be assembled. It is not necessary to remove access panels or to work in difficult-to-access locations.



Your Can-Am: Prerequisites

o My Can-Am is a 2021 Defender Limited, which has as standard equipment the Can-Am 4500 HD winch. The following installation worked for me. There are, of course, other non-Can-Am remote control solutions which will work for the Defender Limited.

o THE BIG SECRET: There is a flat factory-supplied connector into which you plug the 715005752 Winch Harness. This factory-supplied connector is part of the winch wiring harness and, as shown below, the connector is parked in the “firewall” below the Deutsch plugs. Remove the air filter to gain access. (Caution: wear gloves when handling the air filter.) The firewall storage housing is labeled “PF7” (to the bottom left of the housing). Once you remove the factory-supplied connector from its storage housing you will see that the storage housing on the firewall has no electrical connections – it is just a garage for parking the plug. **If you cannot locate this connector, these instructions do not apply to your Can-Am.**



Parts to order

o Only one part is required. I ordered from brp.com. brp.com fronts for the various dealers. brp.com charges at least $10 shipping, which might be less than ordering directly from a dealer; free shipping for orders > $100. Your local dealer is also an option. Of course, some eBay sellers offer the BRP list prices but with free shipping (but some might not be shipping genuine BRP parts).

o 715006504 Can-Am HD Wired Remote Control $25

o Note the short wiring harness on the left. THIS IS INCLUDED IN THE 715006504 but is also available separately as 715005752 Winch Harness ($18), shown below. In this document it is sometimes helpful to refer to the 715005752 to distinguish it from the handheld remote, BUT YOU DO NOT NEED TO ORDER the 715005752 separately from the 715006504.

o There are no instructions.

o Ignore the photo (shown below) on the BRP web page (the link above). My photo shows what you should receive. As of 2023.02.24 the BRP web page shows an incorrect photo (shown below). The BRP photo is incorrect because it shows a female connector rather than the male connector (in my photo) and it omits the short wiring harness (715005752). When ordered from the BRP link above, the dealer should ship what is shown in my photo.

Installation process

o Safety first!

o Open the hood.

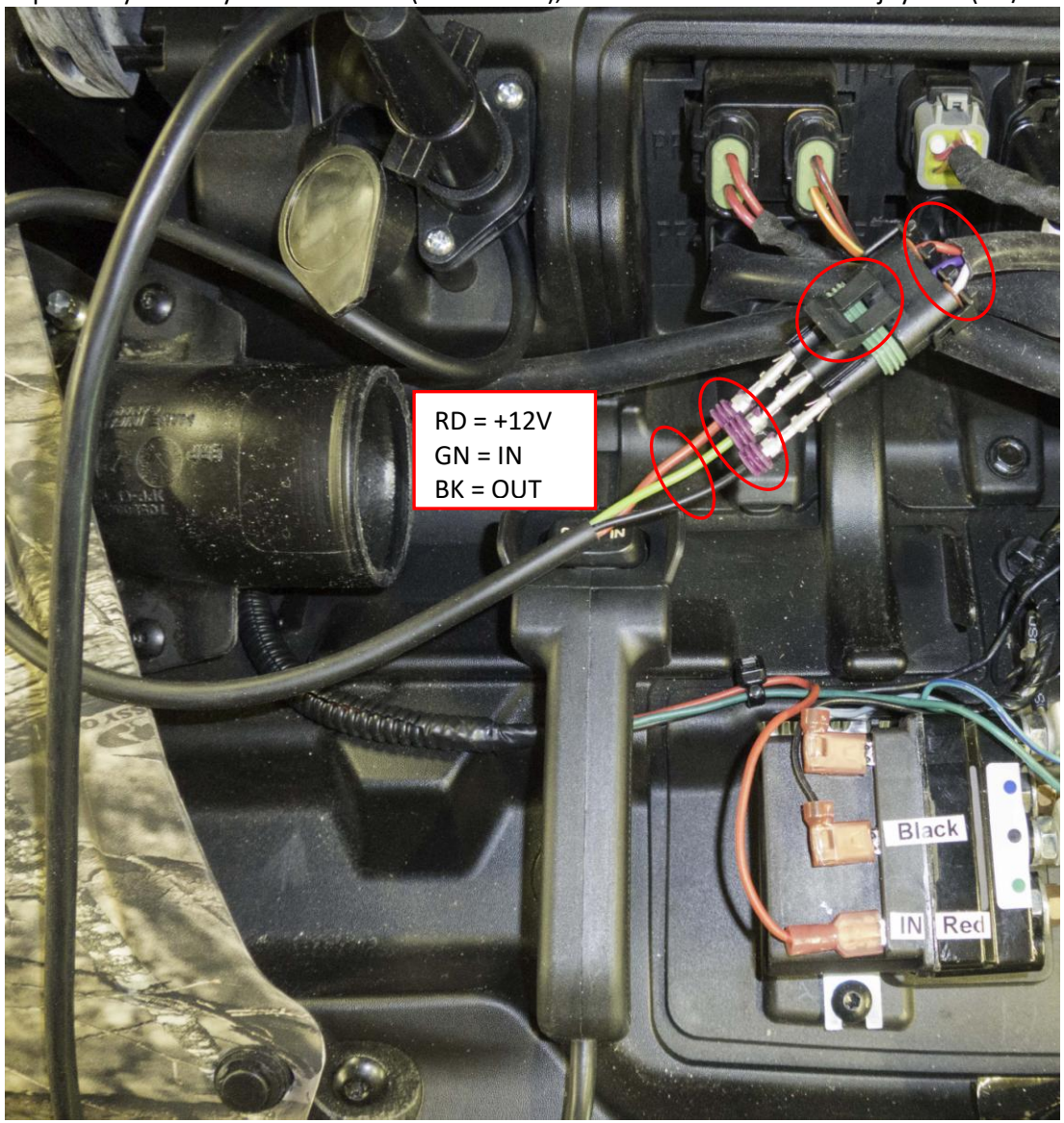
o Remove the air filter. Caution: wear gloves when handling the air filter; the metal mesh can inflict small, irritating cuts.

o Remove the factory-supplied flat winch harness connector from its parking garage in the “firewall”. Refer to THE BIG SECRET photo.

o Screw the round connector from the 715005752 Winch Harness to the factory-supplied mount. Refer to the End Result photo.

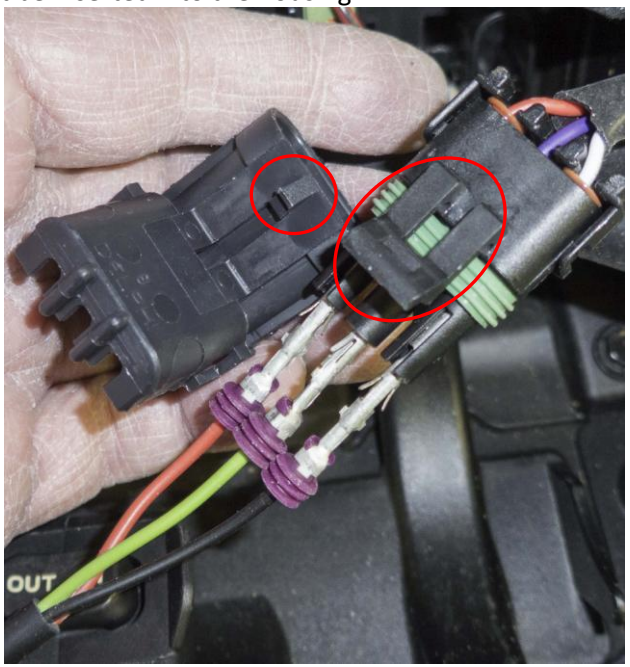
o Plug the 715005752 Winch Harness wires, without their connector housing, into the factory-supplied flat winch harness mount connector (not the flat connector housing that came with the 715005752). Plug the handheld remote connector into the 715005752 Winch Harness round socket. In the photo below, note the colors of the 715005752 vis a vis the colors of the factory wiring harness connector and note the position of the latch on the factory connector. To prevent shorts, ensure that the purple spacers are aligned.

o Note: My Can-Am's wiring might have been modified by the dealer when they installed the Super-Duty Plow Hydraulic Unit Kit (715006038), which installs a dashboard joystick (UP/DOWN/LEFT/RIGHT).



o Turn ignition switch to KEY ON (do not start the engine). Stand away from vehicle and plow (if any) and, using the handheld remote, carefully verify that OUT and IN work as expected. Turn ignition switch to KEY OFF. (I had my Can-Am connected to its trickle charger while doing the installation and these brief tests.)

o Hold the flat 715005752 Winch Harness connector housing next to the factory-supplied flat winch harness mount connector and note the polarity of the 715005752 housing (to mate successfully with the latch on the factory wiring harness connector). Also note how the 715005752 wire colors must be inserted into the housing.



o Disconnect the 715005752 Winch Harness wires from the factory-supplied wiring harness, i.e., the temporary arrangement used for testing. Assemble the 715005752 wires into the provided 715005752 connector housing. Pushing them in by hand might be enough; if not, gently use a flat-bladed screwdriver. Close the cover on the assembled connector.

> o If you reverse OUT and IN, it might be difficult to disassemble the assembled connector without special tools (such tools are available inexpensively on eBay – try “Pin Ejector Wire Kit Extractor Auto Terminal Removal Connector Puller Tool”. I don’t know how well these tools work.). Another possibility is to leave the wiring as is and re-label the buttons on the remote.

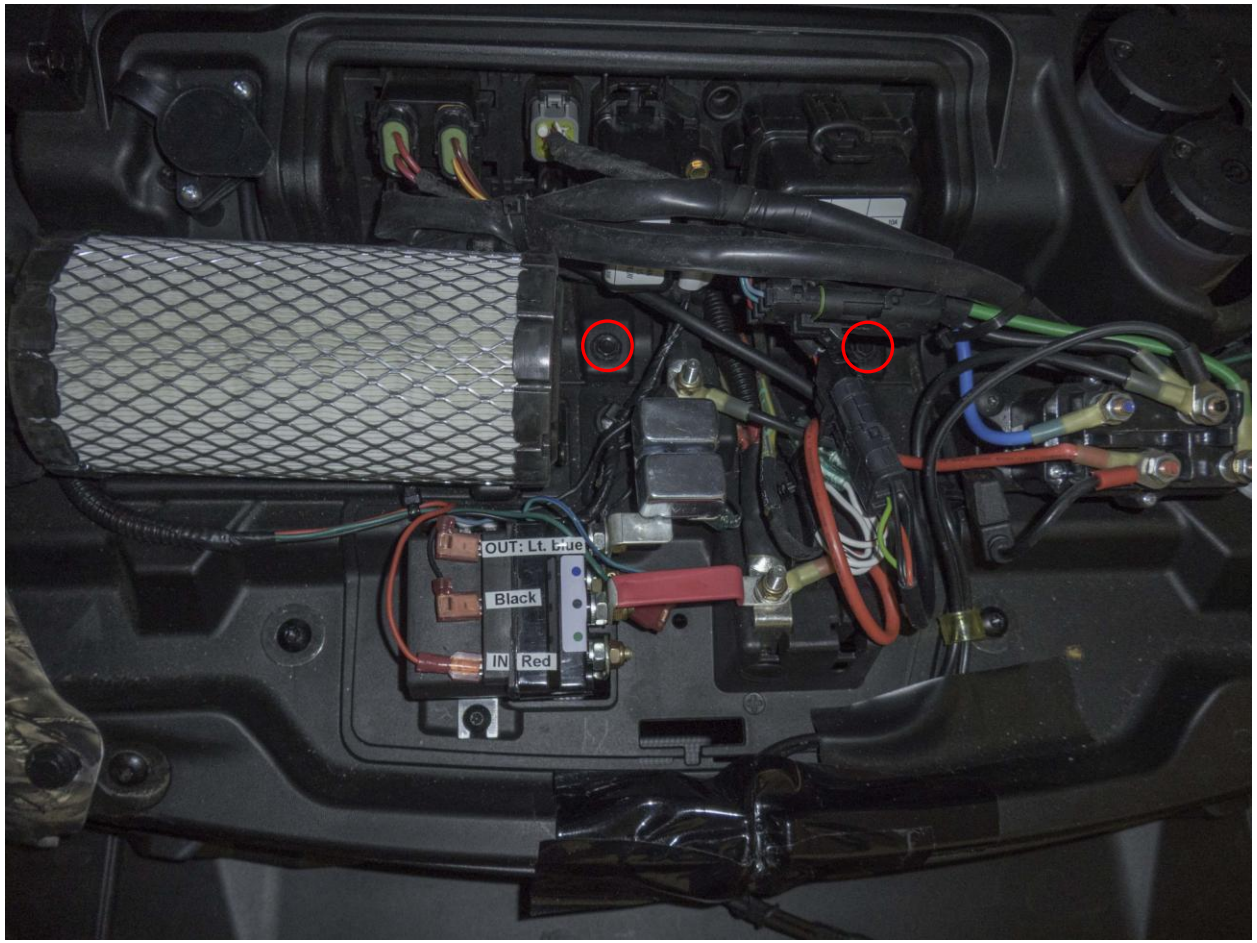
o Plug the flat connector from the 715005752 Winch Harness into the factory-supply winch harness. Ensure that the 715005752 Winch Harness cable runs behind the air filter cradle rather than inside the cradle. As show in the End Result photo above, I just stuffed the assembled connectors under other wiring harness stuff. No zip ties were used. (There is also a small metal clip which comes with the 715006504; I did not use this clip.)

o Reinstall the air filter. Caution: wear gloves when handling the air filter.

o Plug the 715006504 Can-Am HD Wired Remote Control connector into the 715005752 Winch Harness socket. Turn ignition to KEY ON and safely test OUT and IN again. Turn ignition to KEY OFF. Disconnect the handheld and store; I used the pocket in the passenger door and put a Brother P-touch label high on the door (but then, as you see in some photos, someone is a bit obsessive about labeling stuff).

(optional) Analysis: notes on the discovery process

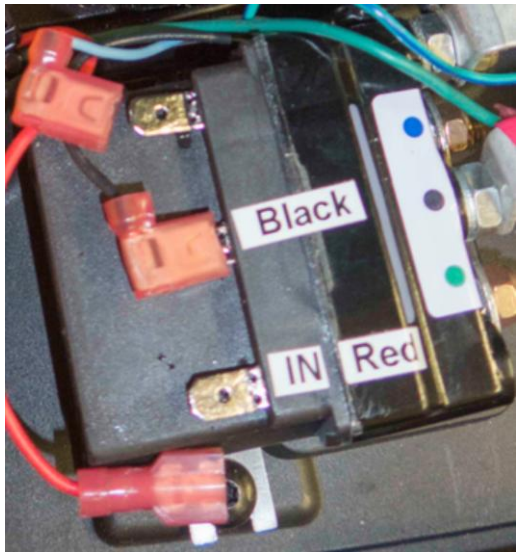
o If your factory wiring is the same as mine, you should not need to remove the solenoid cover. But if you do need to remove the solenoid cover, there are two screws at the rear (see photo below) which, if loosened, make removal easier. A 5/16” or 8mm nut driver or socket is needed. Once the screws are loosened, there is a latch at the front of the cover; press rearward to release.



o As noted on the schematic page below, there are at least two errors on the original schematic:

o The schematic reverses the OUT and IN labels of the solenoid spade connectors.

o Identification of the solenoid OUT and IN was made using a jumper wire to connect each contact separately (and very briefly, less than 1 second) to +12V.

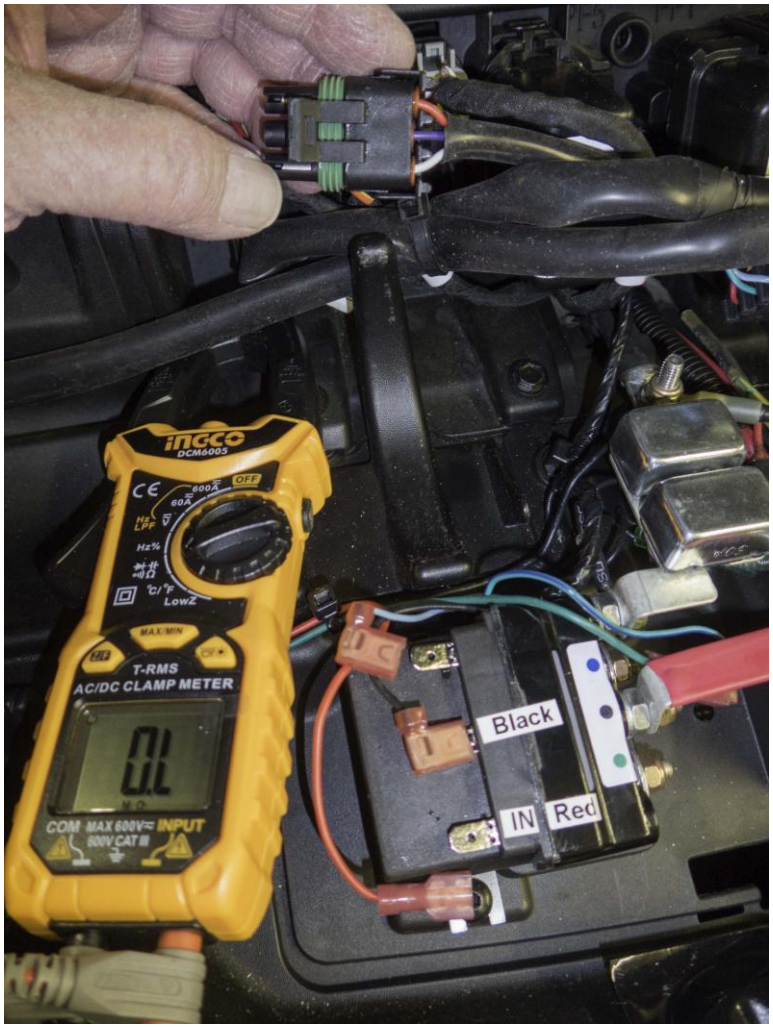


o Similarly, the schematic for the 715006504 Can-Am HD Wired Remote Control connector into the 715005752 Winch Harness socket reverses the colors of OUT and IN.

o Ultimately a DMM continuity tester was used to identify the correct wire colors. The 715006504 Can-Am HD Wired Remote Control connector was plugged into the 715005752 Winch Harness socket.

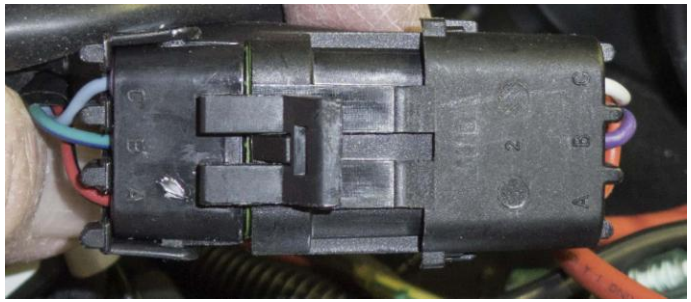
signal	original schematic says	DMM says handheld+715005752
+12V	RD (red)	RD
OUT	GN (green)	BK
IN	BK (black)	GN

o Similarly, a DMM continuity tester was used to identify the OUT and IN connectors on the factory connector to which the 715006504+715005752 connects. The OUT and IN wires were disconnected from the solenoid (to avoid confusion caused by solenoid impedance).



o After all this time-consuming, nit-picking fiddling, I think I ended up with the same arrangement (RD – GN – BK) as is shown in the 715005752 advertising photo. Unfortunately, the photo is not clear enough to unambiguously determine the orientation of the wires vis a vis the housing latch.

o Note that THE BIG SECRET connector is part of a short factory-supplied cable containing red, purple, and white wires. It might be possible to remove this short cable completely and plug the 715005752 connector directly into the factory connector which would remain unconnected. The arrangement of the wires in the connectors seems correct and the gender of the connector and the position of the locking latch seems correct (photo below) but I have neither done any testing nor figured out why this short cable exists. I left the short cable as is simply because there was no compeling reason to remove it (other than space is getting a bit cramped).

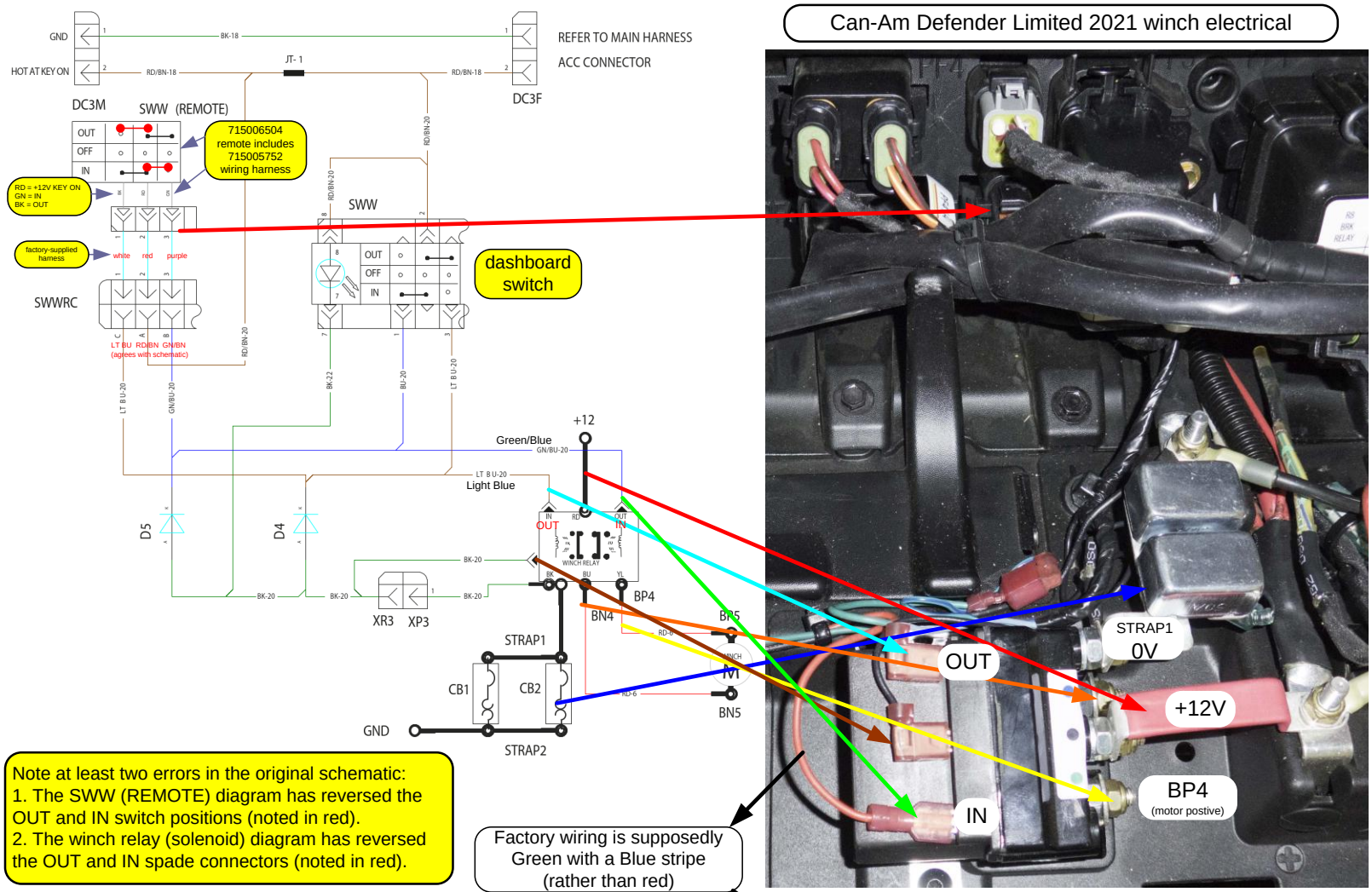


o Credit where credit is due: Back in October 2020, I searched for how to install a Can-Am winch remote but was left totally confused. With various versions of information about multiple Can-Am models, I could not figure out which parts to order and how to install them. The key piece of missing information was about the hidden factory connector. Link to the December 2020 user post about this hidden connector.

- Also, Kelly at KDK Sports (the dealer which processed my order) did a great job and detected that I had ordered the unnecessary 715005752 Winch Harness (as stated above, it is included in the 715006504). Faced with my incredulity, Kelly went the extra mile and pulled another 715006504 from inventory to verify that the 715005752 was indeed included (my order had already been shipped).

Schematic (just in case)…

How to install the Can-Am Wired Remote (Winch) Control on a Defender Limited



Note at least two errors in the original schematic:
1. The SWW (REMOTE) diagram has reversed the OUT and IN switch positions (noted in red).
2. The winch relay (solenoid) diagram has reversed the OUT and IN spade connectors (noted in red).

This diagram is based upon my analysis and I am just an owner. When in doubt please consider using your DMM. Use at your own risk.

Factory wiring is supposedly Green with a Blue stripe (rather than red)

This Can-Am's wiring might have been modified by the dealer when they installed the Super-Duty Plow Hydraulic Unit Kit (715006038), which installs a dashboard joystick (UP/DOWN/LEFT/RIGHT).

Can-Am winch schematic and hardware 01.vsd 03/11/2023