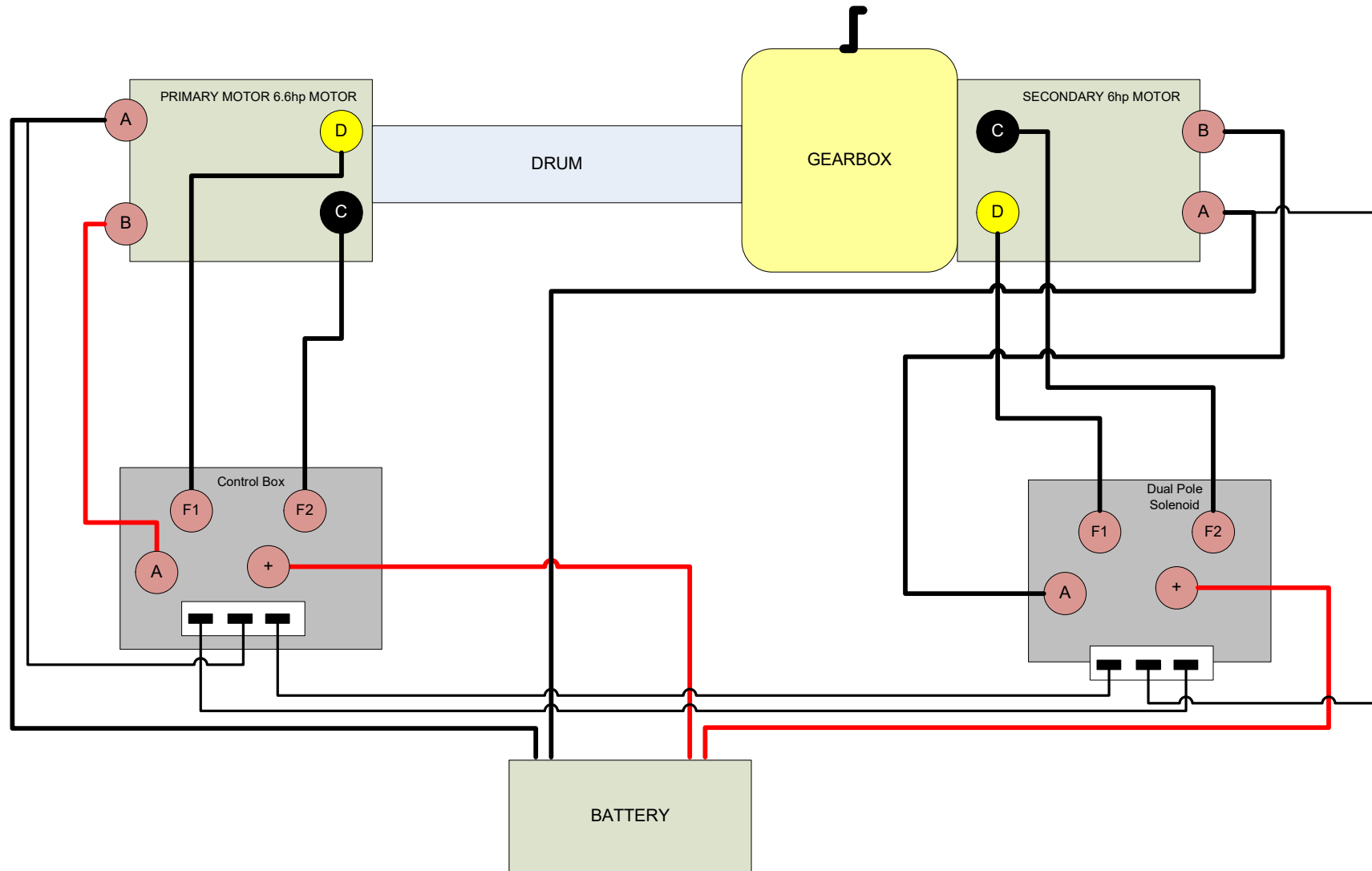


## Wiring a Sherpa Dual Motor Mule with additional dual pole solenoid (standard inclusion 2022)



The Sherpa Mule winch is normally supplied with a single pole solenoid to activate the secondary motor for 'winch in' operations only. No speed increase is achieved running both motors during 'winch out' operations, hence, only the primary motor is normally energised when winching out. However, it is possible for users to do damage to the winch drive shaft by suddenly changing direction from 'winch in' to 'winch out', as the secondary motor will still be running forwards with inertia whilst the primary motor is instantly energised in the reverse direction.

A solution is to replace the factory single pole solenoid with a dual pole solenoid so the secondary winch motor is energised in both directions similar to the primary. This ensures both winch motors change direction from 'winch in' to 'winch out' at the same time in an energised state. Special care must be taken when wiring to ensure the motors are configured to run in opposing directions to each other as they are installed 180 degree to each other. Accidentally wiring the motors to run in the same direction (physically opposing), will shear the internal drive shaft. It is suggested as part of testing, connect the power to each motor individually and ensure 'winch in' turns the winch drum in the same direction for both motors before connecting the power to both motors at the same time.