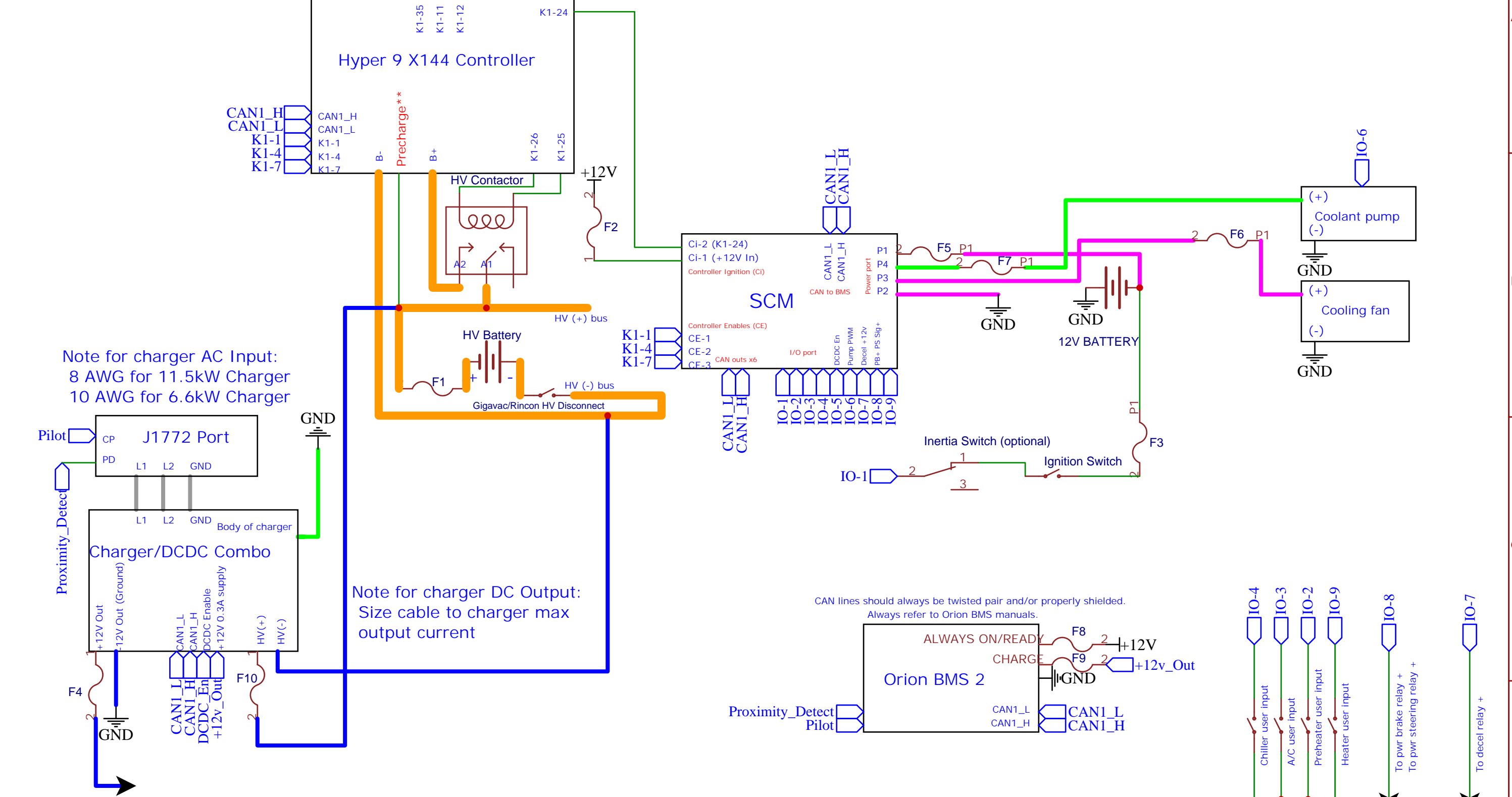


**\*\*NOTE:** This wiring keeps the controller precharged at all times. It means less cycles of precharge circuit. This is option #1 in HyPer 9 manual page 14. This will have a parasitic draw on your pack, BE CAREFUL. If you would prefer, follow option #2 on page 14.

\*Typical EV conversion with NetGain Hyper 9 and X1 controller, Orion 2 BMS, Hawkeye 6.6kW + 1.2kW Charger/DCDC Combo. Also compatible with TC/Elcon 3.3/6.6kW Chargers, 1kW DC Converters



Note for charger AC Input:  
8 AWG for 11.5kW Charger  
10 AWG for 6.6kW Charger

Note for charger DC Output:  
Size cable to charger max output current

CAN lines should always be twisted pair and/or properly shielded. Always refer to Orion BMS manuals.

Fuses	
F1 = 500VDC 400A	F6 = 25A
F2 = 10A	F7 = 15A
F3 = 5A	F8 = 5A (Check BMS manuals)
F4 = 100A (or circuit breaker)	F9 = 5A (Check BMS manuals)
F5 = 30A	F10 = 500VDC 75A (recommended)

Wire gauge	
16 AWG	20/18 AWG
12 AWG	
10 AWG	
8 AWG	
6 AWG	
2/0 AWG (Orange cable)	

TITLE: EV Conversion with SCM2 X144 Controller (144V) REV: 2.02

Company: Hawkeye Innovations LLC Sheet: 1/1  
Date: 12/20/2024 Drawn By: Adam Lansing

