

Motor
Connection

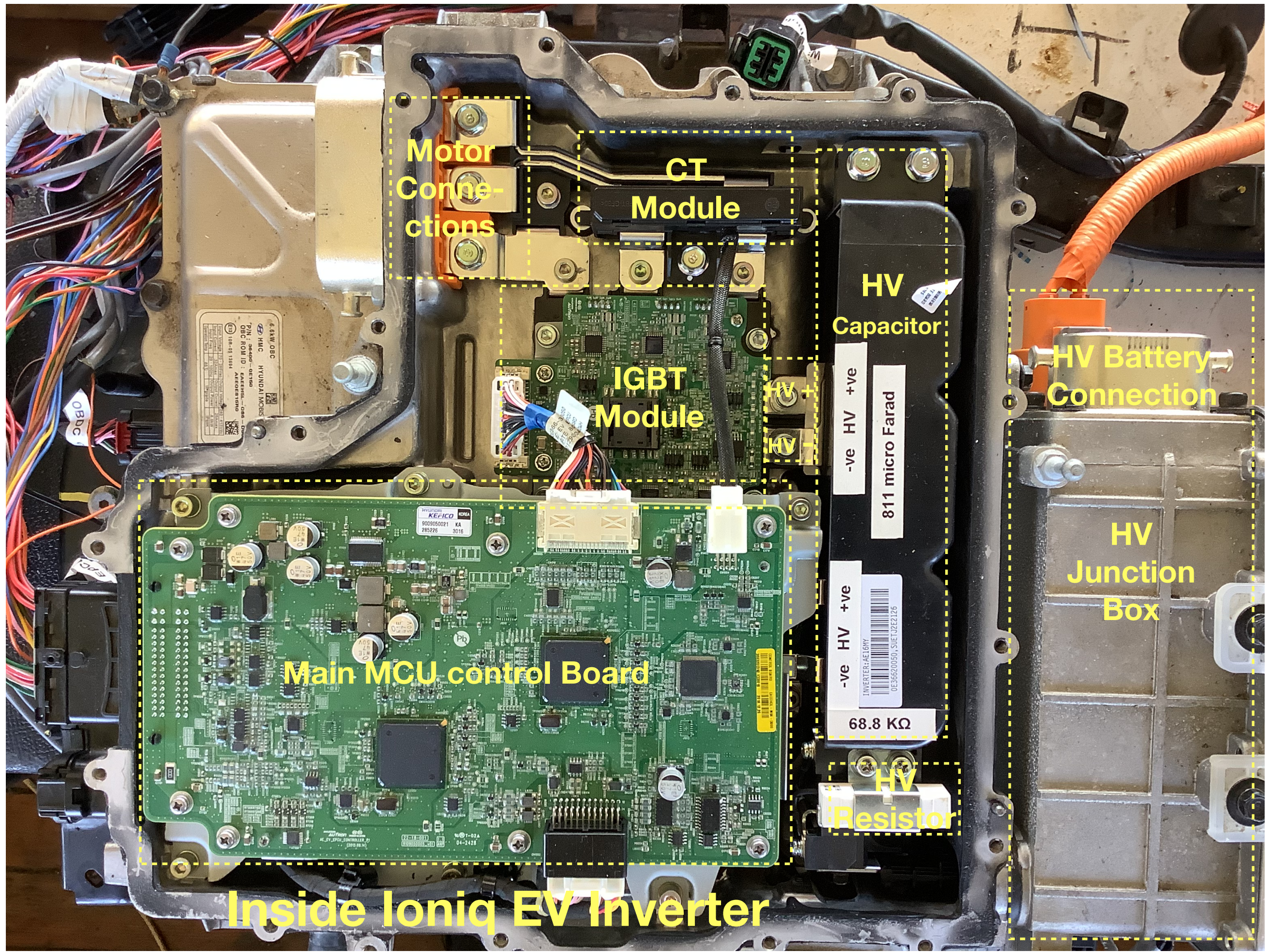
HV Batt
Connection

⚠ 위험 危險 DANGER
⚠ 고전압 高电压 HIGH VOLTAGE Haute tension
이제 차량 점검을 하기 전에 고전압 회로를 안전하게 분리하거나 감전될 수 있습니다.
• 고전압 회로에 손을 대지 마세요.
• 고전압 회로에 손을 대는 경우 감전될 수 있습니다.
• 고전압 회로에 손을 대는 경우 감전될 수 있습니다.
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Non-compliance with the following instructions can induce death or injury caused by electric shock.
• Carefully read and follow service manual instruction.
• Always wear insulated gloves and use insulated tools.
• Remove ignition key and 12V ground cable. Shut off main switch.
• Check Voltage at High voltage terminal.
La dérogation aux consignes suivantes pourrait entraîner des blessures graves voire mortelles, causées par un choc électrique.
• Lire attentivement et suivre les consignes énoncées dans le manuel d'atelier.
• Toujours porter des gants isolés et utiliser des outils isolés.
• Retirer la clé de contact et le câble de masse de 12 V et couper l'interrupteur principal.
• Vérifier la tension au niveau de la borne haute tension.
未遵守以下条件时，因受高压电击可能导致死亡或受伤。
• 维修人员要严格按照维修手册中的程序执行操作。
• 维修时佩戴绝缘手套，使用绝缘工具。
• 维修前取下点火钥匙，断开12V蓄电池的安全开关。
• 维修时确认高压端子之间的电压小于30V。
En caso de no proceder con las siguientes indicaciones puede causar la muerte o heridas por el alto voltaje.
• Prestar atención a las indicaciones después de leer el manual de servicio de mantenimiento.
• Utilice siempre los guantes aislantes y herramientas aislantes.
• Retire la llave de encendido y el contacto de tierra de 12V y apague el interruptor de seguridad de la batería de alto voltaje.
• Verifique el voltaje entre los contactos de alto voltaje que sea inferior a 30V.

KIA
EPCU MODULE
HMC P/N: 36600 - 0E350
MOBIS
MCU : EAEHDL - MS4 - D000
VCU/LDC : EAEH5L - NS5 - D040
OBC : AEE0ES15R0

Reverse Engineering The Hyundai Ioniq Inverter





Motor
Conne-
ctions

CT
Module

IGBT
Module

HV
Capacitor

HV Battery
Connection

HV
Junction
Box

Main MCU control Board

-ve HV +ve

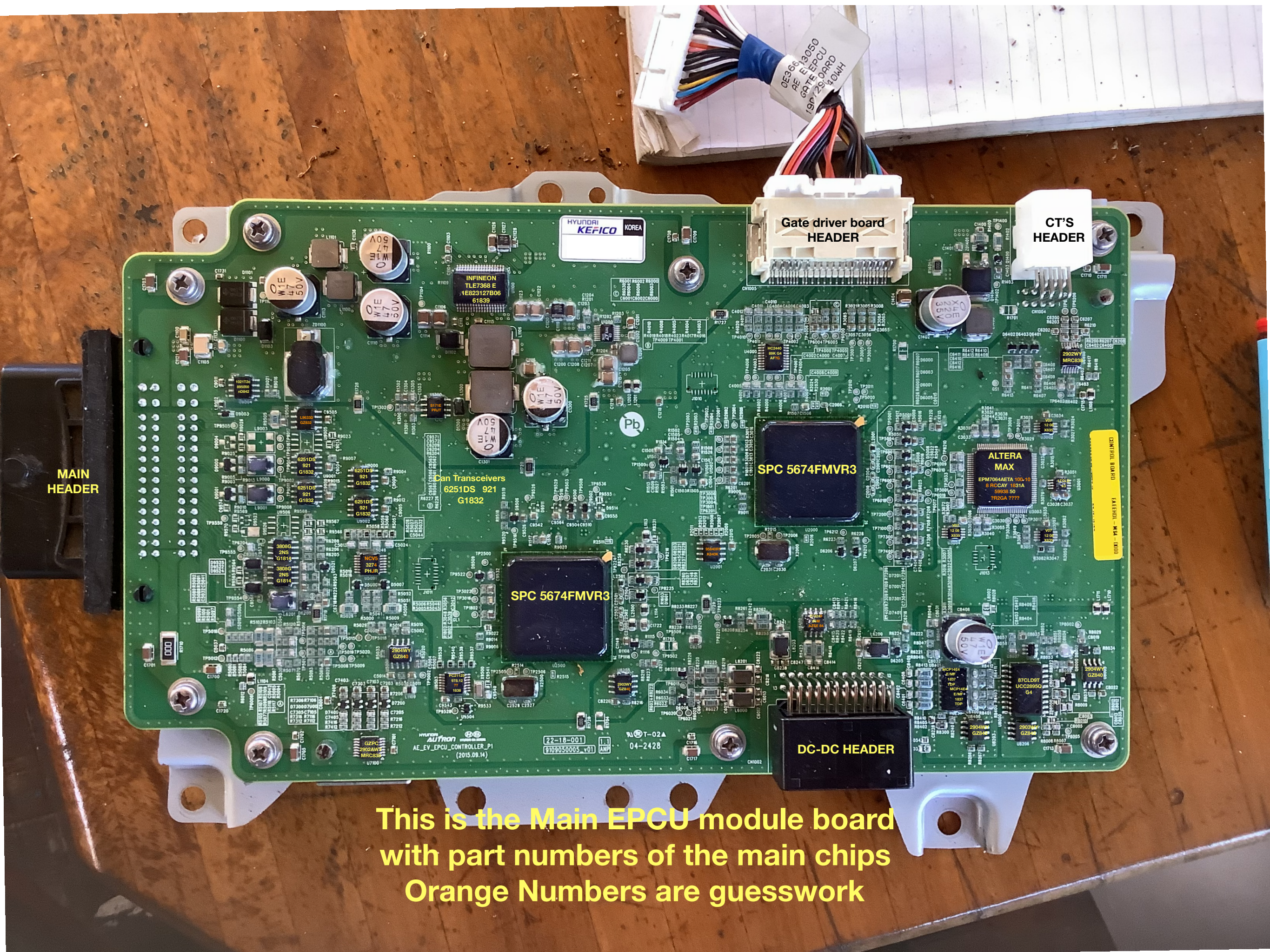
811 micro Farad

-ve HV +ve

68.8 K Ω

HV
Resistor

Inside Ioniq EV Inverter



MAIN
HEADER

Gate driver board
HEADER

CT'S
HEADER

Can Transceivers
6251DS 921
G1832

SPC 5674FMVR3

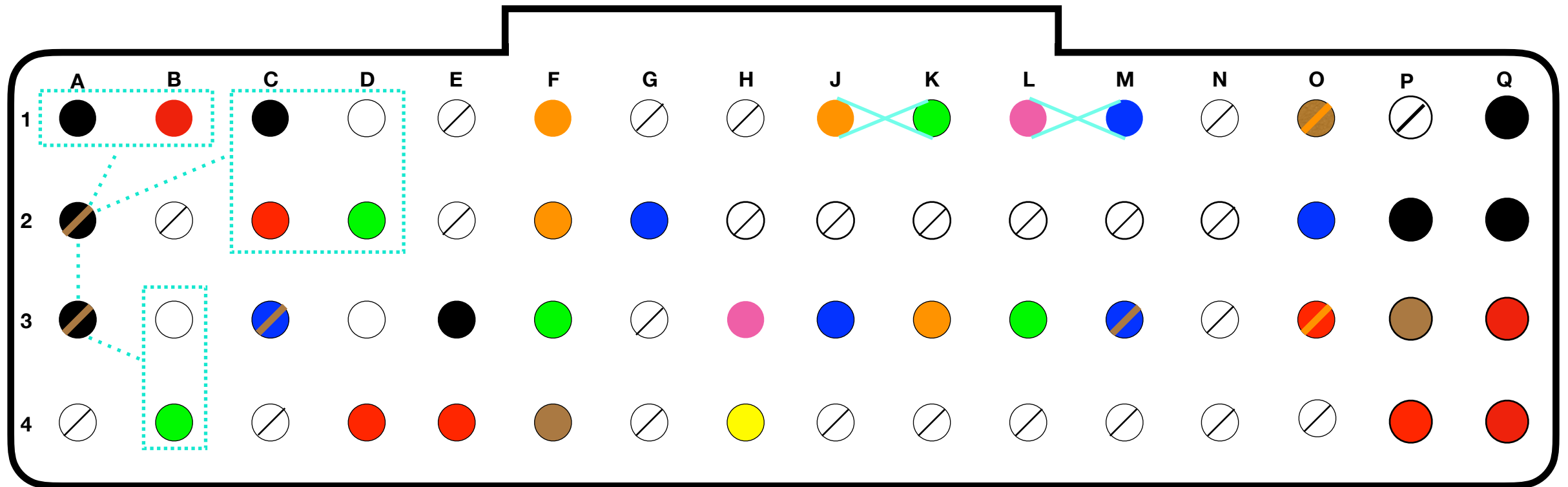
ALTERA
MAX

SPC 5674FMVR3

DC-DC HEADER

This is the Main EPCU module board
with part numbers of the main chips
Orange Numbers are guesswork

MCU



(Looking from wire entry)

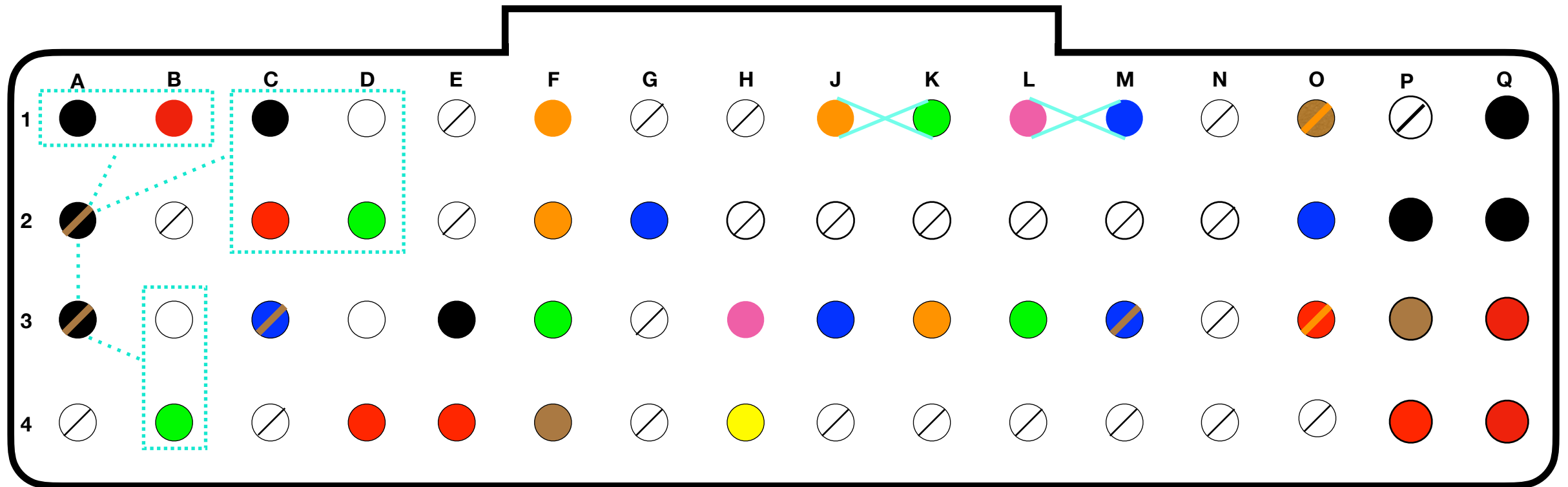
MCU PINOUT ROW 1

Pin No	Wire Colour	Destination	Pin No
A	Black	Resolver	5
B	Red	Resolver	1
C	Black	Resolver	7
D	White	Resolver	6
E			
F	Orange	?	1D
G			
H	Orange	P can High	
J	Green	P can Low	
K	Pink	Eng Compartment Diagnostic plug	LHS JB1
L	Blue	Eng Compartment Diagnostic plug	LHS JB1
M			
N			
O	Brown / orange	Smart Key Module	B6
P			
Q	Black	Bat Neg	

MCU PINOUT ROW 2

Pin No	Wire Colour	Destination	Pin No
A	Black / brown	Resolver screen	
B			
C	Red	Resolver	3
D	Green	Resolver	2
E			
F	Orange	RHS JB1	
G	Blue	Rad Fan sense?	
H			
J			
K			
L			
M			
N			
O	Blue	Bat Pos 10A fuse	
P	Black	Bat Neg	
Q	Black	Bat Neg	

MCU



(Looking from wire entry)

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