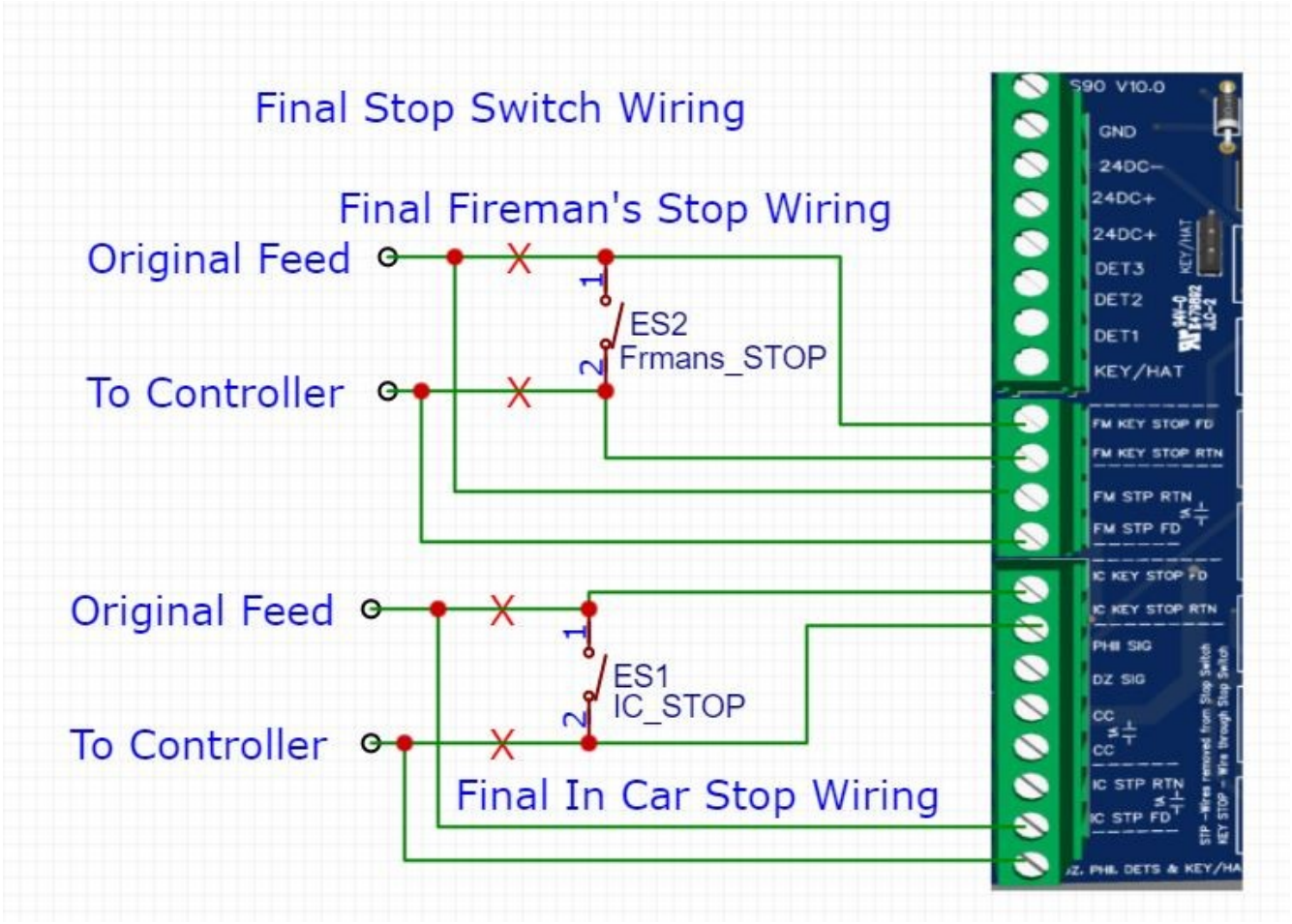
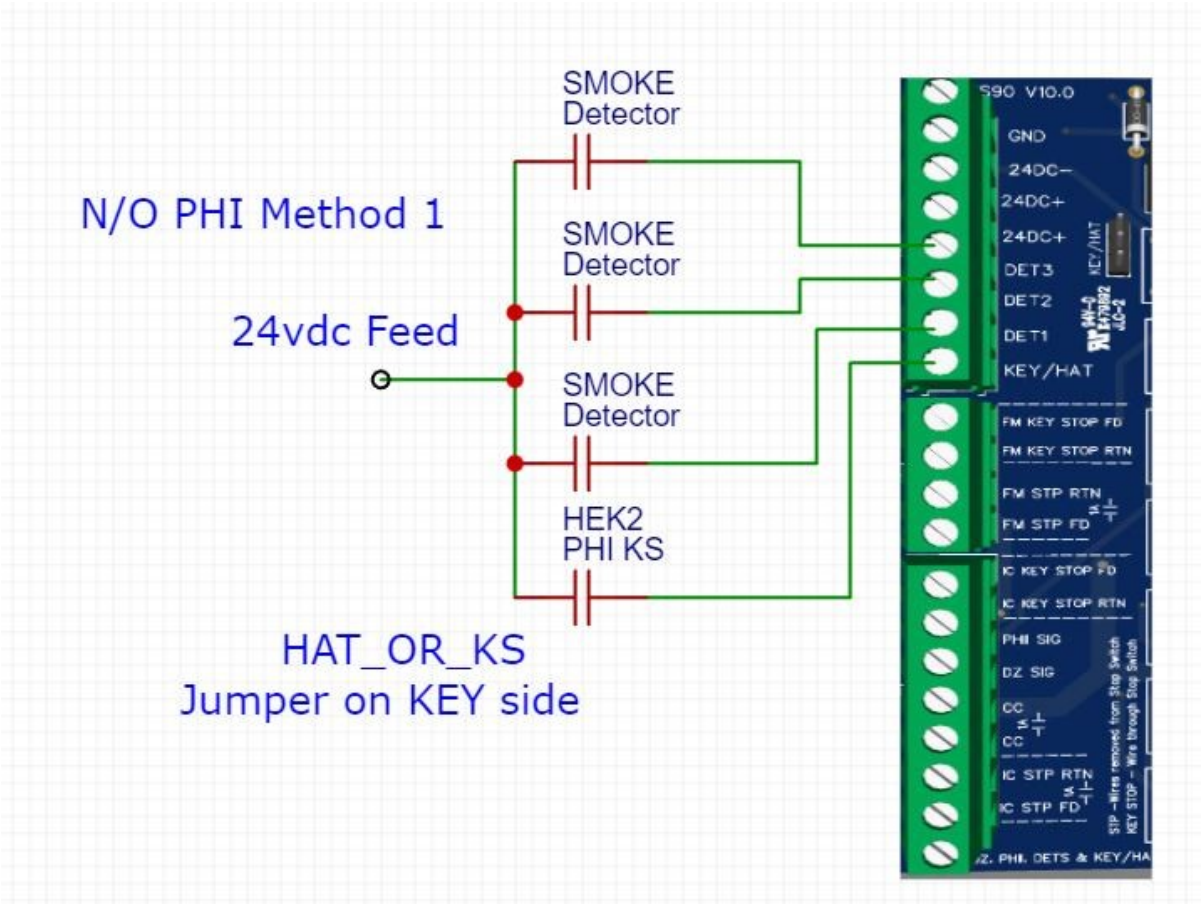
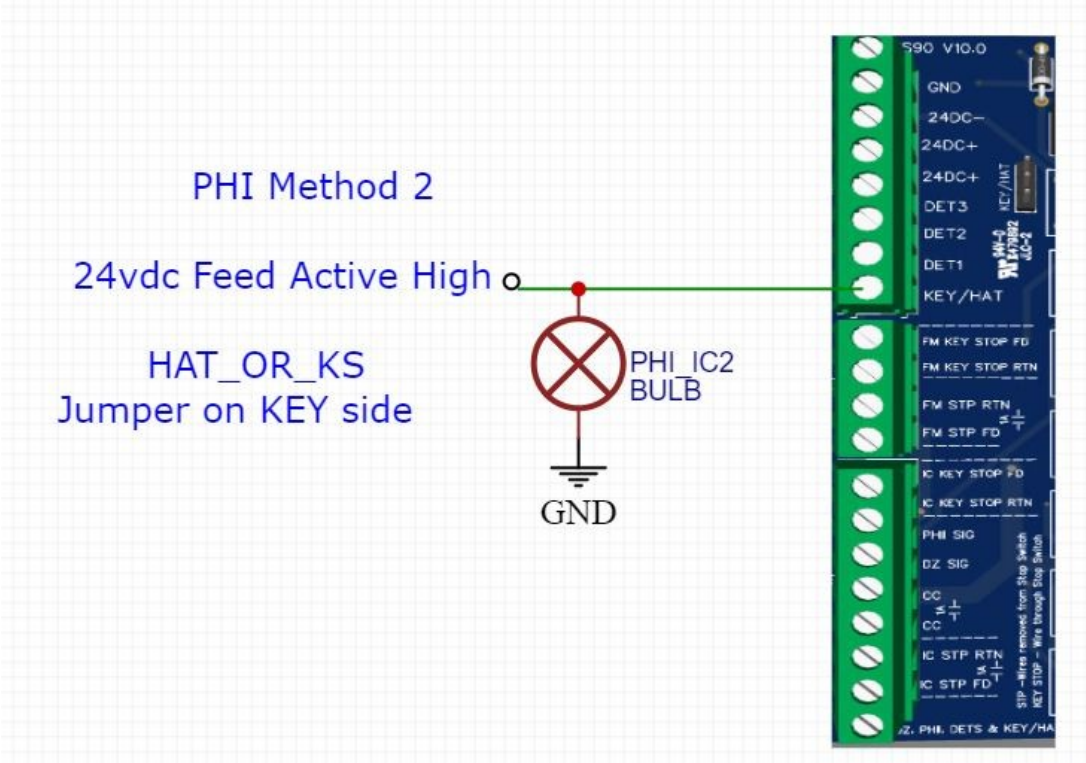
FS90 Simple V10 Basic Wiring Examples.
Use correct connections for each individual system.

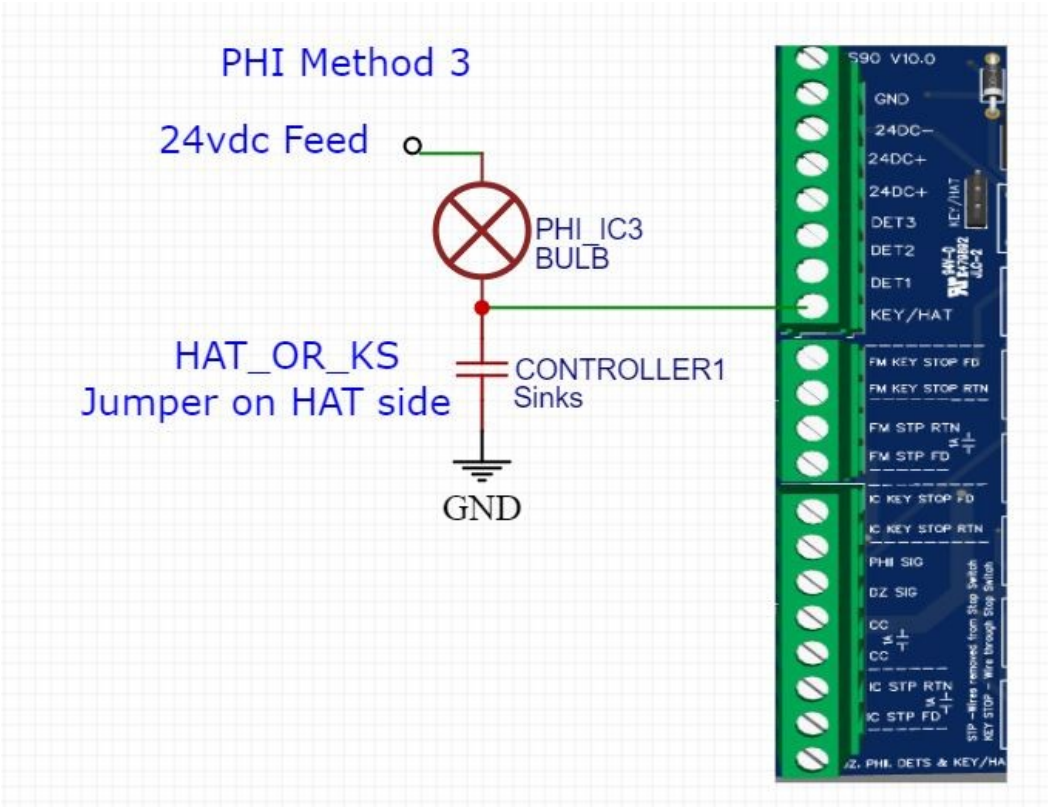
STP = terminals = N/O Relay contact (**1A MAX**)
CC terminals = N/O Relay contact (**1A MAX**)

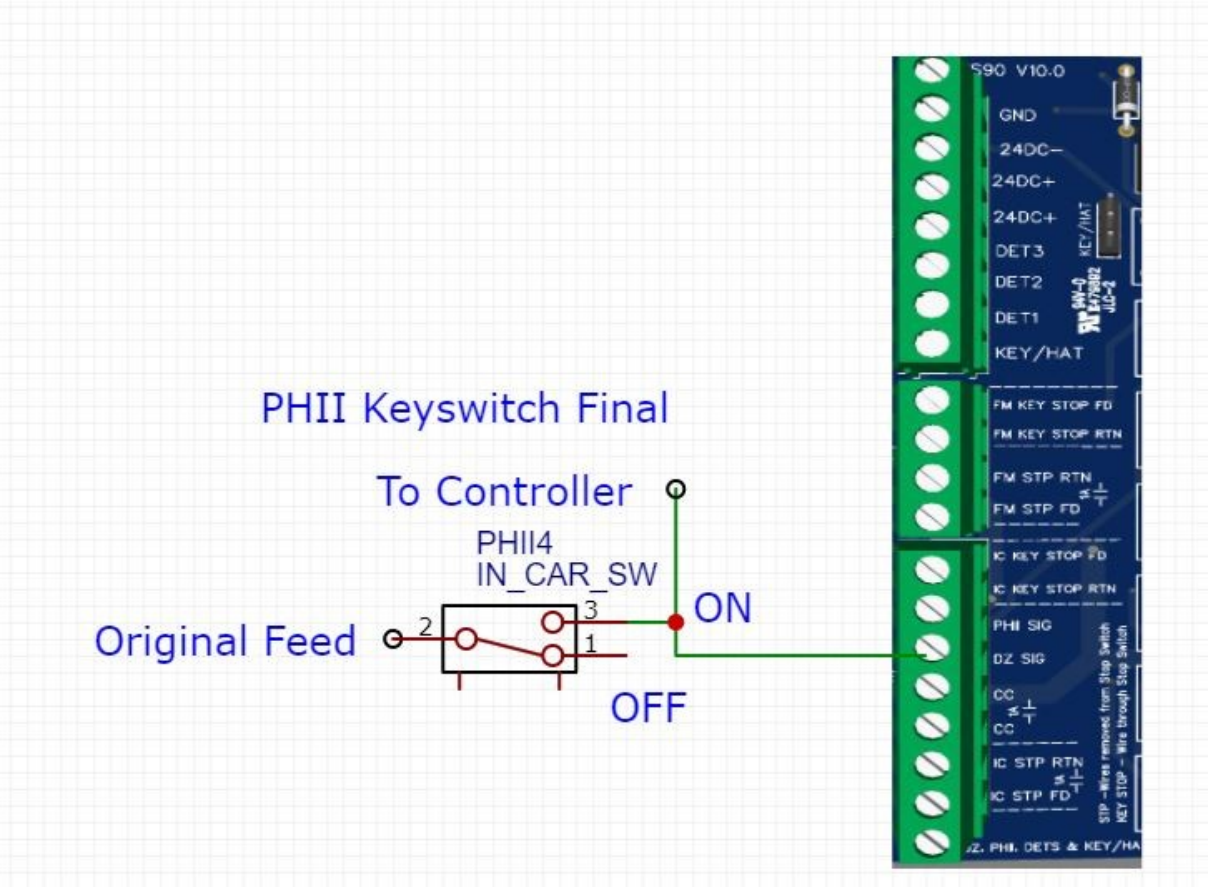
All other connections are 24VDC referenced to 24vdc- terminal on FS90 Board

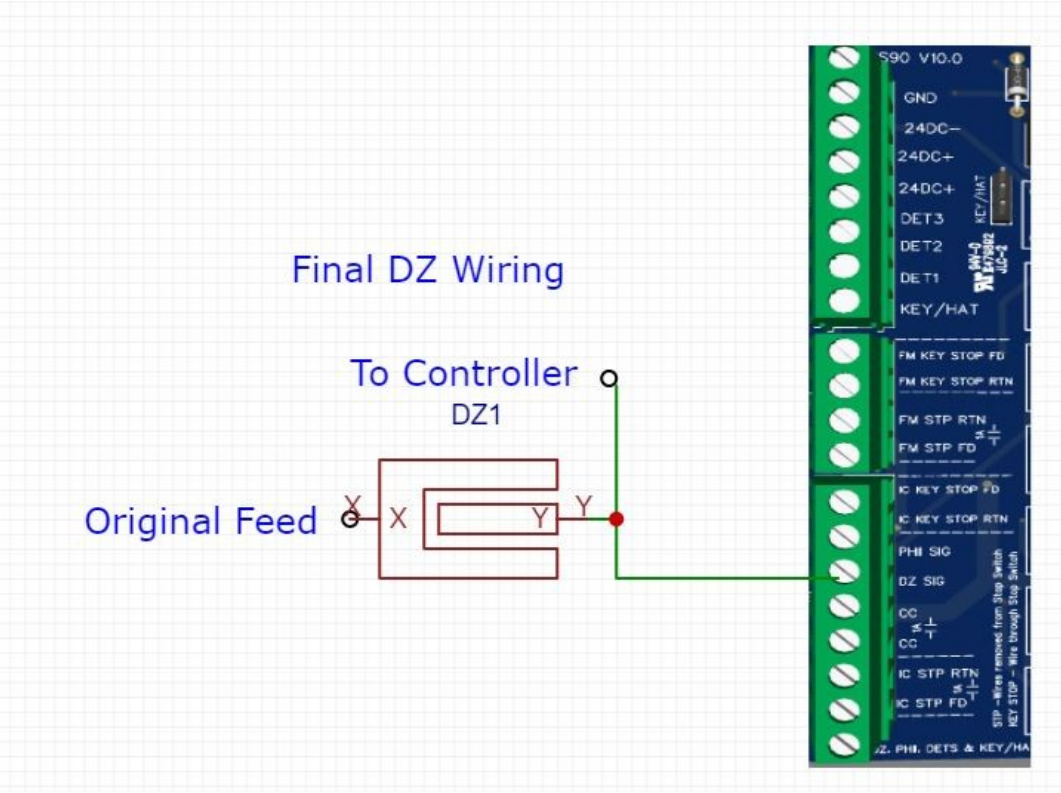


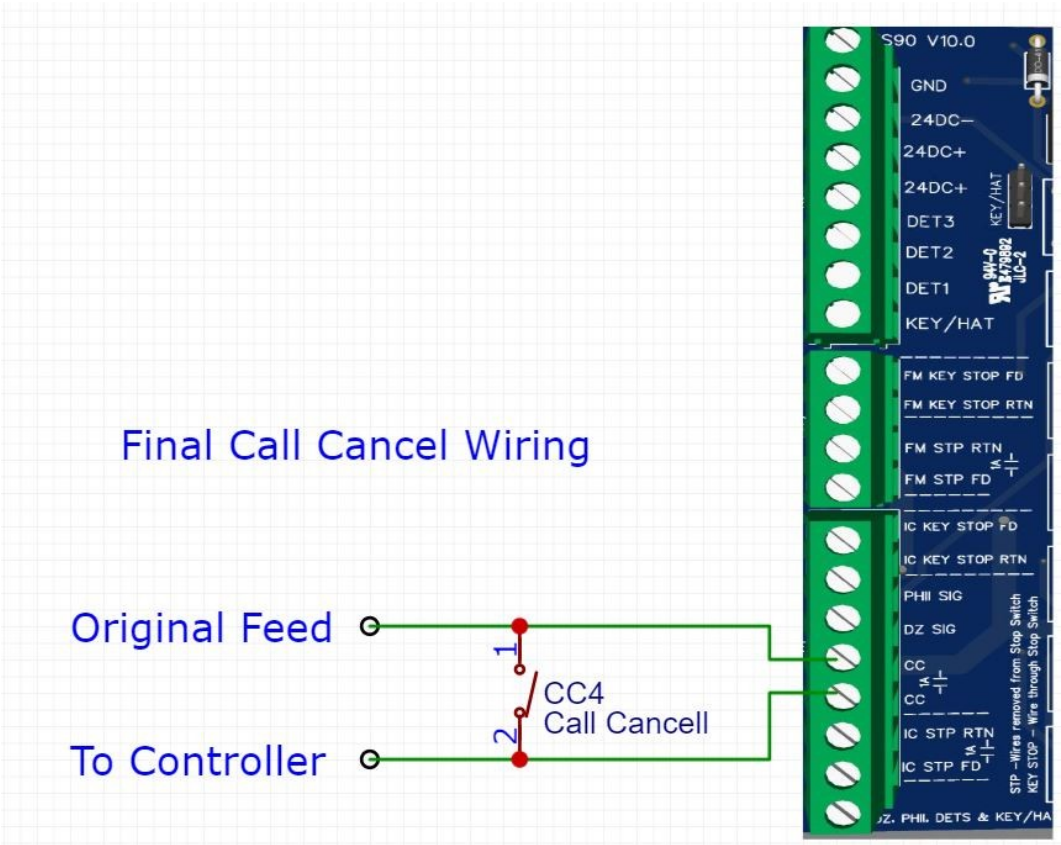

N/O PHI Method 1
24vdc Feed
SMOKE Detector
SMOKE Detector
SMOKE Detector
HEK2 PHI KS
HAT_OR_KS
Jumper on KEY side
S90 V10.0
GND
24DC-
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHI SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD

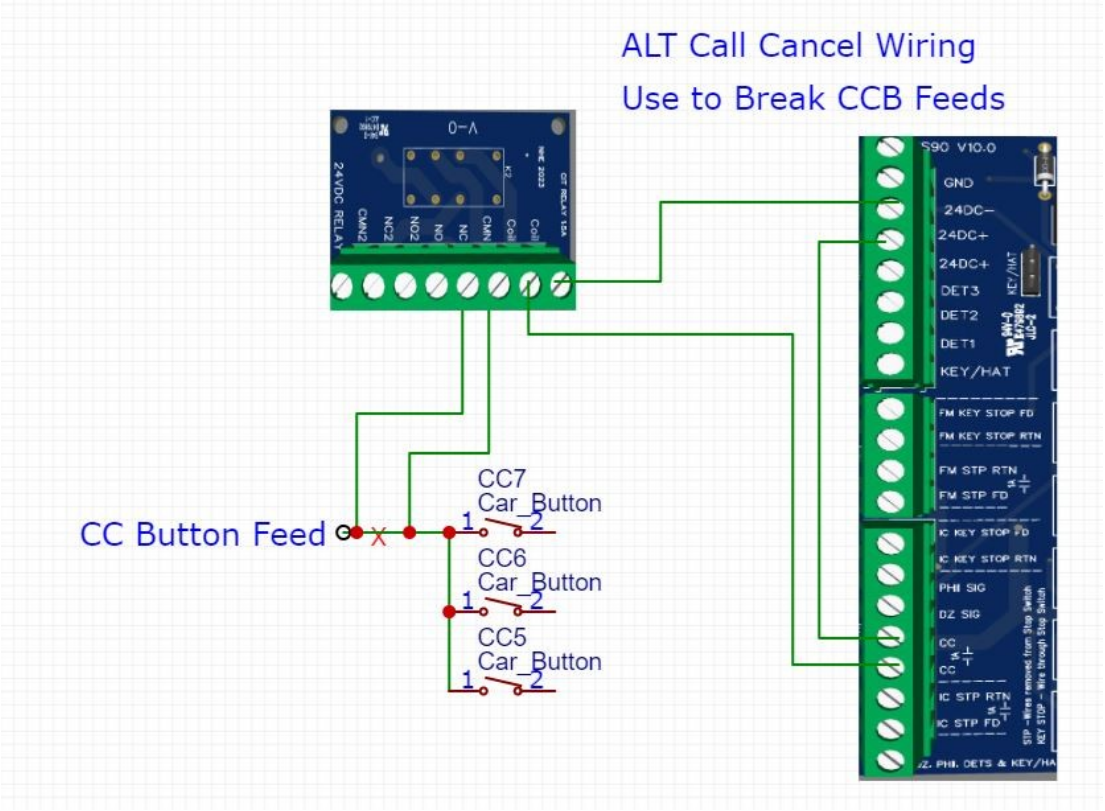

PHI Method 2
24vdc Feed Active High
HAT_OR_KS
Jumper on KEY side
PHI_IC2 BULB
GND
S90 V10.0
GND
24DC-
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHI SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD

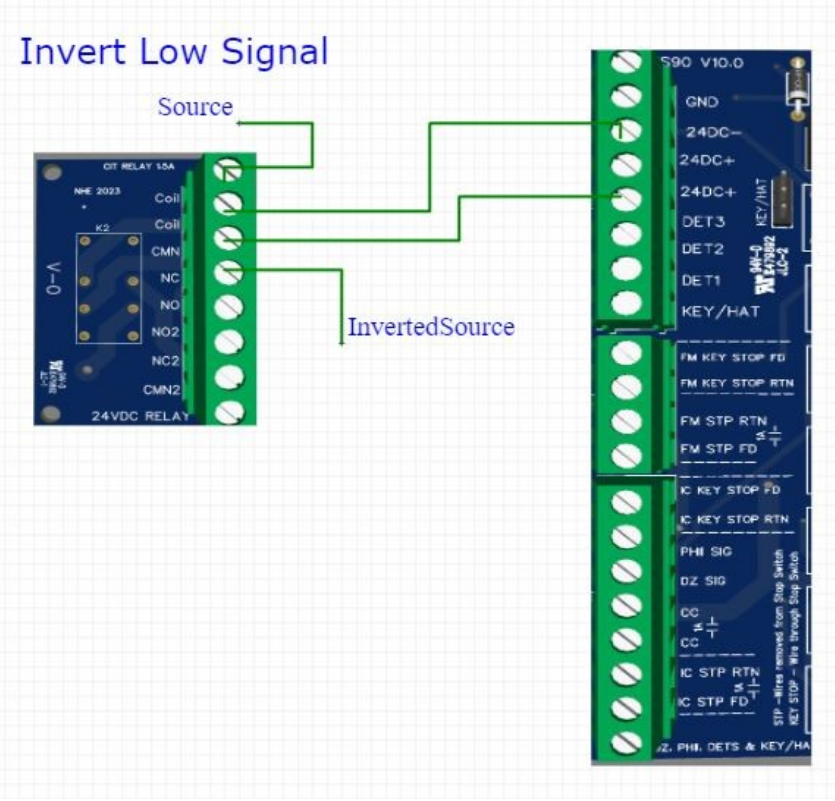

PHI Method 3
24vdc Feed
PHI_IC3
BULB
HAT_OR_KS
Jumper on HAT side
CONTROLLER1
Sinks
GND
S90 V10.0
GND
24DC-
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHI SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD


PHII Keyswitch Final
To Controller
PHII4
IN_CAR_SW
Original Feed
2
3
1
ON
OFF
S90 V10.0
GND
24DC-
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHI SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD


Final DZ Wiring
To Controller
DZ1
Original Feed
X
X
Y
Y
S90 V10.0
GND
24DC–
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHII SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD
STP – Wires removed from Stop Switch
KEY STOP – Wire through Stop Switch


Final Call Cancel Wiring
Original Feed
To Controller
1
2
CC4
Call Cancell
S90 V10.0
GND
24DC–
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHII SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD
STP – Wires removed from Stop Switch
KEY STOP – Wire through Stop Switch


ALT Call Cancel Wiring
Use to Break CCB Feeds
24VDC RELAY
CMN2
NC2
NO2
NO
NC
CMN
Coil
Coil
S90 V10.0
GND
24DC-
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHI SIG
DZ SIG
CC
CC
IC STP RTN
IC STP FD
CC7
Car_Button
CC Button Feed
CC6
Car_Button
CC5
Car_Button


Invert Low Signal
Source
InvertedSource
24VDC RELAY
S90 V10.0
GND
24DC-
24DC+
24DC+
DET3
DET2
DET1
KEY/HAT
FM KEY STOP FD
FM KEY STOP RTN
FM STP RTN
FM STP FD
IC KEY STOP FD
IC KEY STOP RTN
PHI SIG
DZ SIG
IC STP RTN
IC STP FD