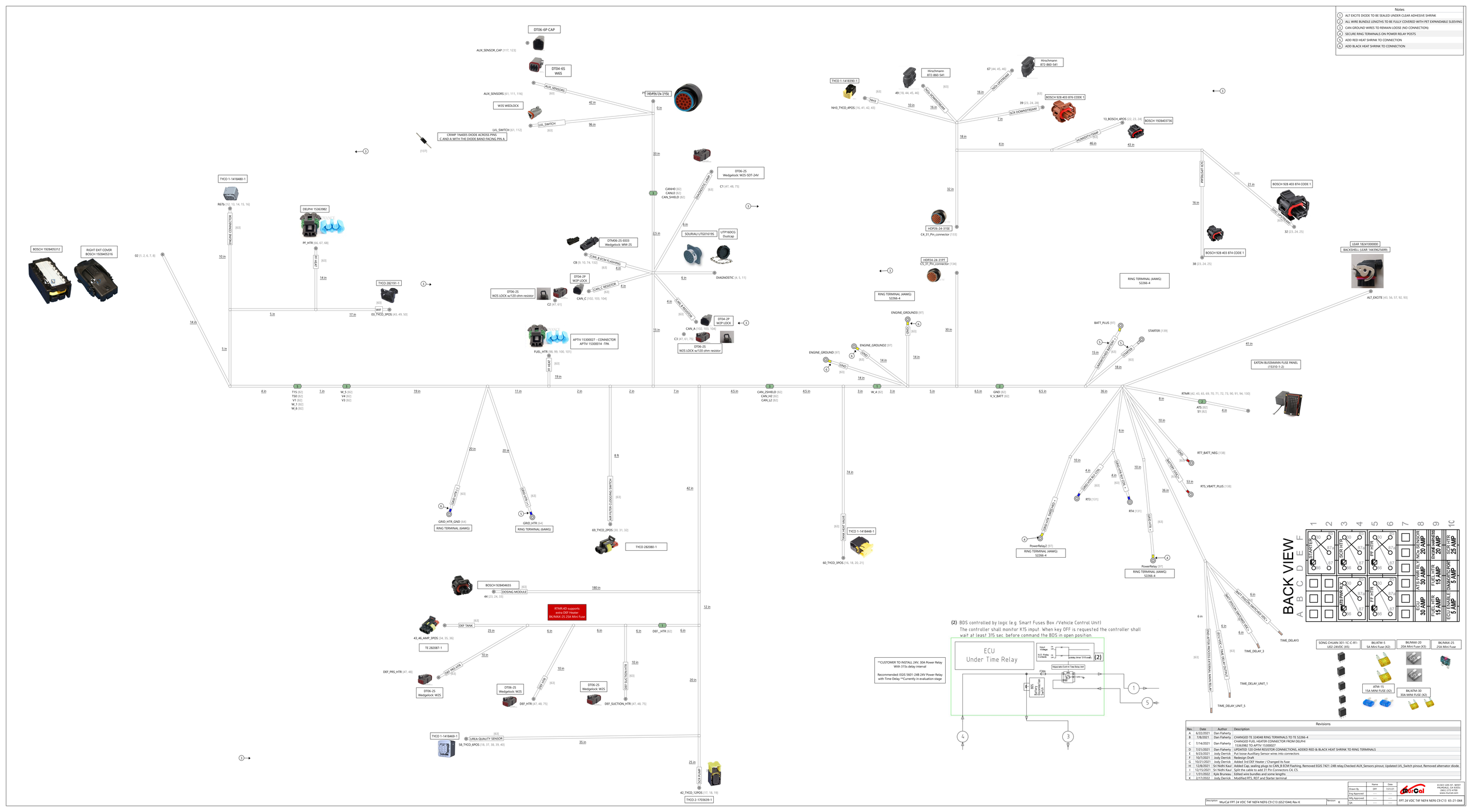
Notes
1 ALT EXCITE DIODE TO BE SEALED UNDER CLEAR ADHESIVE SHRINK
2 ALL WIRE BUNDLE LENGTHS TO BE FULLY COVERED WITH PET EXPANDABLE SLEEVING
3 CAN GROUND WIRES TO REMAIN LOOSE (NO CONNECTION)
4 SECURE RING TERMINALS ON POWER RELAY POSTS
5 ADD RED HEAT SHRINK TO CONNECTION
6 ADD BLACK HEAT SHRINK TO CONNECTION
DT06-6P CAP
AUX_SENSOR_CAP [117, 123]
DT04-6S W6S
AUX_SENSORS [61, 111, 116]
AUX_SENSORS [63]
42 in
W3S WEDLOCK
LVL_SWITCH [63]
96 in
LVL_SWITCH [61, 112]
CRIMP 1N4005 DIODE ACROSS PINS C AND A WITH THE DIODE BAND FACING PIN A
[137]
PT HDP26-24-31SE
0 in
33 in
DT06-2S Wedgelock: W2S-SOT-24V
CANH0 [62]
CAN1.0 [62]
CAN_SHIELD [62]
DIAGNOSTIC_LINK
C1 [47, 48, 75]
6 in
SOURAU UTG016195
UTP160CG Dustcap
2.5 in
DIAGNOSTIC [4, 5, 11]
DTM06-2S-6S03 Wedgelock: WM-2S
CAN_B ECM FLASHING
CB [9, 10, 74, 132]
4 in
DT04-2P W2P LOCK
CAN_C RESISTOR
CAN_C [102, 103, 104]
C2 [47, 61]
DT06-2S W2S LOCK w/120 ohm resistor
CAN_A RESISTOR
DT04-2P W2P LOCK
CAN_A [102, 103, 104]
C3 [47, 61, 75]
DT06-2S W2S LOCK w/120 ohm resistor
15 in
APTIV 15300027 - CONNECTOR APTIV 15300014 -TPA
FUEL_HTR [98, 99, 100, 101]
PF HEAT
19 in
TYCO 1-1418480-1
R67b [12, 13, 14, 15, 16]
ENGINE CONNECTION
DELPHI 15363982
PF_HTR [66, 67, 68]
EXH HT
14 in
10 in
TYCO 282191-1
WP
03_TYCO_3POS [43, 49, 50]
5 in
17 in
BOSCH 1928405312
RIGHT EXIT COVER BOSCH 1928405319
02 [1, 2, 6, 7, 8]
14 in
5 in
4 in
T1S [62]
T5D [62]
V1 [62]
W_3 [62]
W_6 [62]
1 in
W_5 [62]
V4 [62]
V3 [62]
19 in
11 in
2 in
2 in
7 in
4.5 in
CAN_2SHIELD [62]
CAN_H2 [62]
CAN_L2 [62]
4.5 in
3 in
W_4 [62]
3 in
5 in
6.5 in
GND [63]
V_V_BATT [62]
6.5 in
36 in
20 in
20 in
GRID HTR
GRID HTR (-)
GRID_HTR_GND [64]
RING TERMINAL (6AWG)
GRID_HTR [64]
RING TERMINAL (6AWG)
8 in
LVL FILTER CLOGGING SWITCH
69_TYCO_2POS [30, 31, 32]
42 in
TYCO 282080-1
BOSCH 928404655
DOSING MODULE
44 [23, 24, 33]
180 in
RTMR-40 supports extra DEF Heater BK/MAX-25 25A Mini Fuse
43_46_AMP_3POS [34, 35, 36]
DEF TANK
25 in
6 in
6 in
DEF_HTR [82]
6 in
TE 282087-1
10 in
DEF_PRS_HTR [47, 48]
DEF PRS HTR
DT06-2S Wedgelock: W2S
DT06-2S Wedgelock: W2S
DEF HTR
DEF_HTR [47, 48, 75]
DEF SUCTION HTR
DT06-2S Wedgelock: W2S
DEF_SUCTION_HTR [47, 48, 75]
10 in
10 in
20 in
TYCO 1-1418469-1
UREA QUALITY SENSOR
58_TYCO_6POS [18, 37, 38, 39, 40]
35 in
12 in
SCR_A_AMP
42_TYCO_12POS [17, 18, 19]
TYCO 2-1703639-1
TYCO 1-1418390-1
NH3_TYCO_4POS [16, 41, 42, 43]
Hirschmann 872-860-541
NOX_DOWNSTREAM
49 [18, 44, 45, 46]
10 in
16 in
67 [44, 45, 46]
NOX_UPSTREAM
16 in
Hirschmann 872-860-541
39 [23, 24, 28]
SCR DOWNSTREAM
7 in
BOSCH 928 403 876 CODE 1
18 in
4 in
HUMIDITY/TEMP
46 in
13_BOSCH_4POS [22, 23, 24]
43 in
BOSCH 1928403736
32 in
HDP26-24-31SE C4_31_Pin_connector [133]
HDP24-24-31PT C5_31_Pin_connector [134]
RING TERMINAL (4AWG) 52266-4
ENGINE_GROUND3 [97]
GND
30 in
ENGINE_GROUND2 [97]
GND
14 in
ENGINE_GROUND [97]
GND
14 in
74 in
TEMS HEAT VALVE
TYCO 1-1418448-1
60_TYCO_3POS [16, 18, 20, 21]
HYBRID/HT SOL
16 in
38 [23, 24, 25]
BOSCH 928 403 874 CODE 1
21 in
BOSCH 928 403 874 CODE 1
DOC OUTLET
32 [23, 24, 25]
RING TERMINAL (4AWG) 52266-4
LEAR 18241000000 BACKSHELL (LEAR 14439625699)
ALT_EXCITE [43, 56, 57, 92, 93]
BATT_PLUS [97]
STARTER [139]
LARGE(6AWG) BATTERY +
STARTER
15 in
18 in
41 in
EATON BUSSMANN FUSE PANEL (15210-1-2)
RTMR [42, 43, 65, 69, 70, 71, 72, 73, 90, 91, 94, 130]
ATS [82]
S5 [82]
8 in
4 in
10 in
6 in
RT7_BATT_NEG [138]
RTS_VBATT_PLUS [138]
53 in
10 in
10 in
4 in
4 in
10 in
36 in
GRID HTR (-)
GRID HTR +
GRID_HTR_+_SWITCHED
PowerRelay2 [97]
RING TERMINAL (4AWG) 52266-4
RT3 [131]
RT4 [131]
PowerRelay [97]
RING TERMINAL (4AWG) 52266-4
BACK VIEW
A B C D E F
1 2 3 4 5 6 7 8 9 10
A1 STARTER
A2 GND
B1 SCR HTR
B2 GND
C1 PF HTR
C2 GND
D1 NOX SENSOR 20 AMP
D2 GND
ATS 30 AMP
PF HTR 15 AMP
SCR HTR 20 AMP
NOX SENSOR 20 AMP
E1 VBATT PLUS 30 AMP
E2 GND
F1 DEF HTR 5 AMP
F2 GND
DEF HTR 5 AMP
DOSING MODULE 5 AMP
EXT CANBUS 5 AMP
VBATT PLUS 30 AMP
(2) BDS controlled by logic (e.g. Smart Fuses Box /Vehicle Control Unit)
The controller shall monitor K15 input. When key OFF is requested the controller shall wait at least 315 sec. before command the BDS in open position.
**CUSTOMER TO INSTALL 24V, 30A Power Relay With 315s delay interval
Recommended: EGS 5601-24B 24V Power Relay with Time Delay **Currently in evaluation stage
ECU Under Time Relay
Input Voltage
S.O. Pulse Contacts
Autodelay timer 315 sec
(2)
F304
Adjustable Control Time Delay Unit
Battery Master Switch
TIME_DELAY_UNIT_1
TIME_DELAY_UNIT_5
TIME_DELAY_3
TIME_DELAY_1
SONG CHUAN 301-1C-C-R1-U02-24VDC (K5)
BK/ATM-5 5A Mini Fuse (K2)
BK/MAX-20 20A Mini Fuse (K5)
BK/MAX-25 25A Mini Fuse
ATM-15 15A MINI FUSE (K2)
BK/ATM-30 30A MINI FUSE (K2)
Revisions
Rev | Date | Author | Description
A | 6/22/2021 | Dan Flaherty | -
B | 7/8/2021 | Dan Flaherty | CHANGED TE 324048 RING TERMINALS TO TE 52266-4
C | 7/14/2021 | Dan Flaherty | CHANGED FUEL HEATER CONNECTOR FROM DELPHI 15363982 TO APTIV 15300027
D | 7/21/2021 | Dan Flaherty | UPDATED 120 OHM RESISTOR CONNECTIONS, ADDED RED & BLACK HEAT SHRINK TO RING TERMINALS
E | 9/23/2021 | Jody Derrick | Put loose Auxillary Sensor wires into connectors
F | 10/7/2021 | Jody Derrick | Redesign Draft
G | 10/21/2021 | Jody Derrick | Added 3rd DEF Heater / Changed its fuse
H | 12/8/2021 | Sri Nidhi Kaul | Added Cap, sealing plugs to CAN_B ECM Flashing, Removed EGIS 7421-24B relay,Checked AUX_Sensors pinout, Updated LVL_Switch pinout, Removed alternator diode.
I | 12/15/2021 | Sri Nidhi Kaul | Split the cable to add 31 Pin Connectors C4, C5.
J | 1/31/2022 | Kyle Bruneau | Edited wire bundles and some lengths
K | 2/17/2022 | Jody Derrick | Modified RTS, RQ7 and Starter terminal
Description: MurCal FPT 24 VDC T4F NEF4 NEF6 C9 C13 (6521044) Rev K
Revision: K
Drawn By: DRF 3/21/21
Eng Approved: ---- ----
Mfg Approved: ---- ----
QA: ---- ----
MurCal 41343 12th ST. WEST Palmdale, CA 93551 (661) 272-4700 www.murcal.com
FPT 24 VDC T4F NEF4 NEF6 C9 C13 - 65-21-044