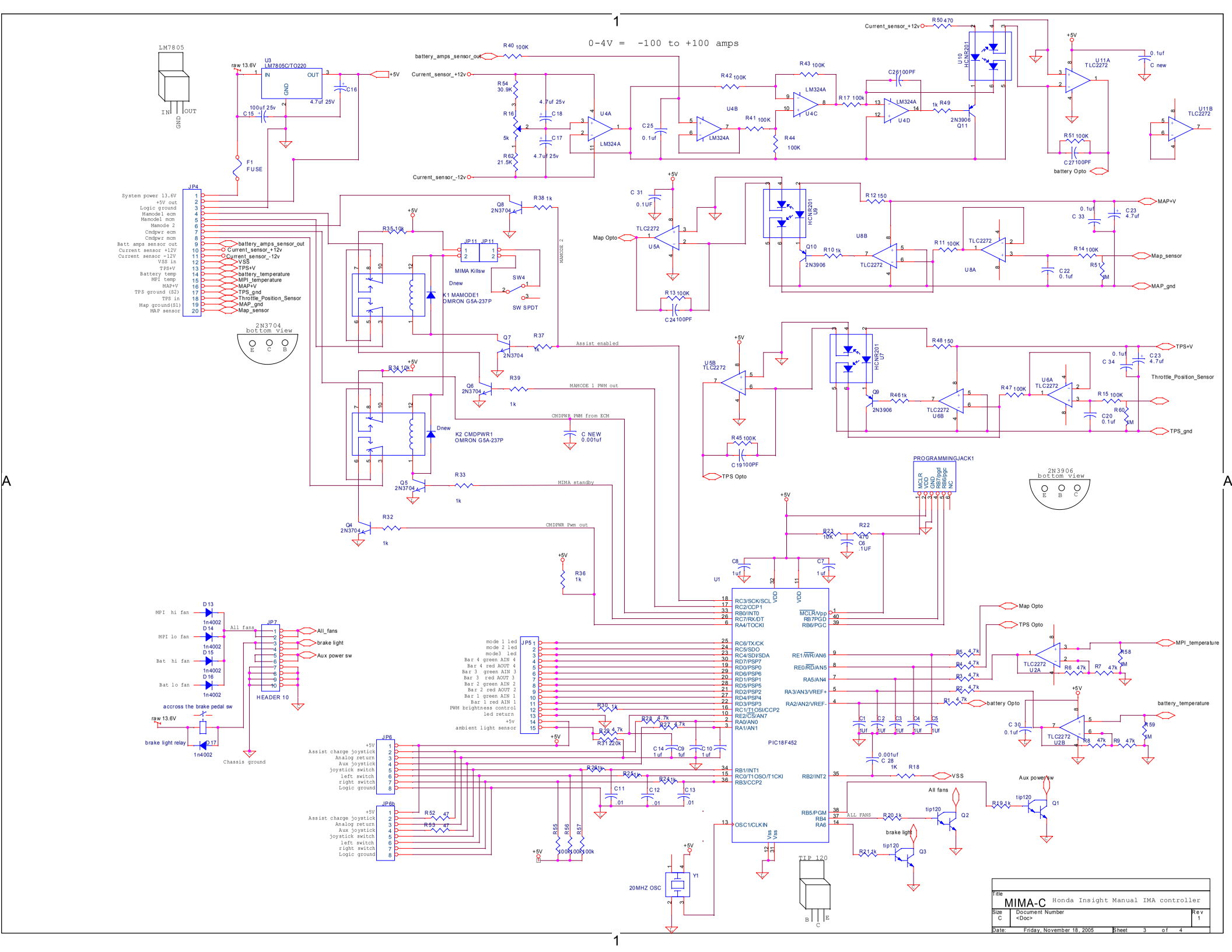
0-4V = -100 to +100 amps
LM7805
IN
GND
OUT
U3
LM7805C/TO220
raw 13.6V
+5V
C16
4.7uf 25V
C15
100uf 25V
F1
FUSE
JP4
System power 13.6V
+5V out
Logic ground
Mamodel ecm
Mamodel mcm
Mamode 2
Cmdpwr ecm
Cmdpwr mcm
Batt amps sensor out
Current sensor +12V
Current sensor -12V
VSS in
TPS+V
Battery temp
MPI temp
MAP+V
TPS ground (S2)
TPS in
Map ground(S1)
MAP sensor
battery_amps_sensor_out
Current_sensor_+12v
Current_sensor_-12v
VSS
TPS+V
battery_temperature
MPI_temperature
MAP+V
TPS_gnd
Throttle_Position_Sensor
MAP_gnd
Map_sensor
2N3704
bottom view
E C B
battery_amps_sensor_out
R40 100K
Current_sensor_+12v
R54 30.9K
R16 5k
R62 21.5K
C18 4.7uf 25v
C17 4.7uf 25v
U4A
LM324A
C25 0.1uf
U4B
R42 100K
R41 100K
R43 100K
U4C
R44 100K
R17 100k
C26 100PF
U4D
1k R49
2N3906 Q11
Current_sensor_-12v
Current_sensor_+12v
R50 470
U10 HCNR201
U11A TLC2272
0.1uf C new
R51 100K
C27 100PF
battery Opto
U11B TLC2272
C 31 0.1UF
Map Opto
U5A TLC2272
R13 100K
C24 100PF
U8 HCNR201
R12 150
U8B
Q10 2N3906
R10 1k
TLC2272
R11 100K
U8A
C22 0.1uf
C 33 0.1uf
C23 4.7uf
R14 100K
R51 1M
MAP+V
Map_sensor
MAP_gnd
Q8 2N3704
R38 1k
MAMODE 2
R35 10k
JP11 JP11
MIMA Killsw
Dnew
SW4
SW SPDT
K1 MAMODE1
OMRON G5A-237P
Q7 2N3704
R37 1k
Assist enabled
R34 10k
Q6 2N3704
R39 1k
MAMODE 1 PWM out
CMDPWR PWM from ECM
C NEW 0.001uf
Dnew
K2 CMDPWR1
OMRON G5A-237P
Q5 2N3704
R33 1k
MIMA standby
Q4 2N3704
R32 1k
CMDPWR Pwm out
U5B TLC2272
U7 HCNR201
R48 150
Q9 2N3906
R46 1k
TLC2272 U6B
U6A TLC2272
R47 100K
C 34 0.1uf
C23 4.7uf
Throttle_Position_Sensor
R15 100K
R60 1M
C20 0.1uf
TPS_gnd
R45 100K
C19 100PF
TPS Opto
PROGRAMMINGJACK1
MCLR
VDD
GND
RB7/PGD
RB6/PGC
NC
2N3906
bottom view
E B C
R36 1k
U1
PIC18F452
C8 1uf
C7 1uf
R23 10K
R22 470
C6 .1UF
RC3/SCK/SCL
RC2/CCP1
RB0/INT0
RC7/RX/DT
RA4/T0CKI
RC6/TX/CK
RC5/SDO
RC4/SDI/SDA
RD7/PSP7
RD0/PSP0
RD6/PSP6
RD1/PSP1
RD5/PSP5
RD2/PSP2
RD4/PSP4
RD3/PSP3
RC1/T1OSI/CCP2
RE2/CS/AN7
RA0/AN0
RA1/AN1
RB1/INT1
RC0/T1OSO/T1CKI
RB3/CCP2
OSC1/CLKIN
MCLR/Vpp
RB7/PGD
RB6/PGC
RE1/WR/AN6
RE0/RD/AN5
RA5/AN4
RA3/AN3/VREF+
RA2/AN2/VREF-
RB2/INT2
RB5/PGM
RB4
RA6
VDD
Vss
D13 MPI hi fan
D14 MPI lo fan
D15 Bat hi fan
D16 Bat lo fan
1n4002
All fans
JP7
HEADER 10
All_fans
brake light
Aux power sw
accross the brake pedal sw
raw 13.6V
brake light relay
D17
1n4002
Chassis ground
JP5
mode 1 led
mode 2 led
mode3 led
Bar 4 green AIN 4
Bar 4 red AOUT 4
Bar 3 green AIN 3
Bar 3 red AOUT 3
Bar 2 green AIN 2
Bar 2 red AOUT 2
Bar 1 green AIN 1
Bar 1 red AIN 1
PWM brightness control
led return
+5v
ambient light sensor
R30 1k
R29 4.7k
R28 4.7k
R27 4.7k
R31 220k
C14 1uf
C9 1uf
C10 1uf
JP6
Assist charge joystick
Analog return
Aux joystick
joystick switch
left switch
right switch
Logic ground
R26 1k
R25 1k
R24 1k
C11 .01
C12 .01
C13 .01
JP6b
R52 47
R53 47
R55 100K
R56 100K
R57 100k
Y1
20MHZ OSC
TIP 120
B C E
R5 4.7k
R4 4.7k
R3 4.7k
R2 4.7k
R1 4.7k
battery Opto
C1 1uf
C2 1uf
C3 1uf
C4 1uf
C5 1uf
0.001uf C 28
1K R18
VSS
R20 1k
ALL FANS
tip120 Q2
brake light
tip120 Q3
R21 1k
Aux power sw
R19 1k
tip120 Q1
Map Opto
TPS Opto
TLC2272 U2A
R58 1M
R6 47k
R7 47k
MPI_temperature
C 30 0.1uf
TLC2272 U2B
R8 47k
R9 47k
R59 1M
battery_temperature
Title
MIMA-C Honda Insight Manual IMA controller
Size C
Document Number <Doc>
Rev 1
Date: Friday, November 18, 2005
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