

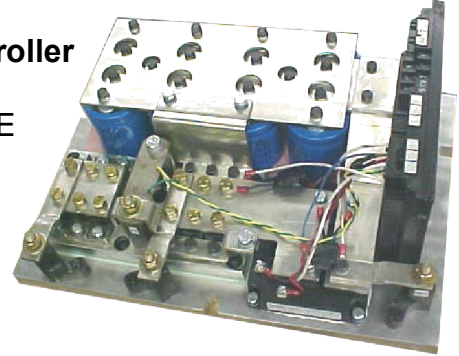


TRANSISTORIZED MOTOR CONTROLLER
EVT1000 1000 Amp Series
Motor Controller 36 - 144 Volt

Specification Sheet

COMPLETE KIT INCLUDES

1000A EVT1000 Transistorized Series Motor Controller
 IGBT Technology with programmable control card allows for easy programming using the GE LX handset or Sentry software.



Contactor Panel (Reverser)

Contactors:

Line
 Forward and Reverse
 1A (Bypass)
 Regenerative Braking
 Hydraulic Pump
 Hydraulic Steer Pump
 Power and Control Fuses
 Interconnecting wiring and cables
 Hydraulic Pump Interrupt Driver



Hydraulic Pump Panel (EVT100)



Dash Display



Accelerator



Power Steering Panel (STAR)



Kit shown designed to replace GE EV1-D Systems

SPECIFICATIONS AND FEATURES

On-Board Diagnostics	Standard, Displayed to Handset or Dash Display
Hourmeter	1-Displayed to Dash1-Secure (Handset Read)
Stored Status Codes	16 Codes with BDI and Hourmeter Reference
Card Type Selection	Standard Enable/Disable Features
PWM Frequency	2 KHZ
Creep Speed	Adjustable 2% to 15% On Time
Current Limit	Adjustable See C/L Curves
Plugging	Adjustable 200 to 800 Amps
Pedal Position Plug	Adjustable 100 to 800 Amps, can be disabled
Ramp Start	Standard
1A Operation Arcless	Standard
Full Power Transition	Standard with 1A Contactor
Controlled Acceleration	Adjustable 0.1 to 22 seconds
1A Timed Pick-Up	Follows CA by 0.2 seconds when Accel Volts are < 0.5V or Accel Ohms are < 200
1A Thermal Hold-Off	Standard at 90°C cutback at 20% on-time
1A Plugging Hold-Off	Standard
PMT (Fault Shut Down)	Standard Look Ahead and Reset Two Count
Thermal Protection	Standard 90° C Cutback
Static Return to Off	Standard 2 Second Delay
Voltage Range	36 . 144 VDC
Accelerator Input	Accelerator Input 5000-0 Ohms, 3.5-0 VDC
Low Battery Operation	Standard
Reverse Batt Protection	Standard
Ambient Temperature	-30 to +50 °C
Coil Drivers	
- F/R - Line	On-Board
- 1A - Regen	On-Board
- SP	On-Board
Shorted Driver Protection	Standard
Shorted 3 REC Protection	Standard
Switch Loading for F/R and Speed Input	Logic Current
Regen Operation Arcless	Standard
Regenerative Braking	Adjustable Regen C/L = 75A to 630A Regen Start = 15% to 96%
Steer Pump Time Delay	Seat = 0.5 to 63 Seconds Neutral = 0.5 to 63 Seconds
Accelerator Volts Hold-Off	Standard, Accel volts > 2.5 VDC
Battery Volts Check	Standard
RS-232 Comm Port	Standard
BDI	Standard
Stall Current	1000A - 2 Minutes in Air
One Hour Rating	300A with 0.3 °C/Watt Heatsink at 40 °C Ambient
Plug Current Limit	
- Min-Max at 1 Second	330/800 Amps
- Min-Max at 3 Second	330/650 Amps

ENVIRONMENTAL TESTING

- Temperature Storage Test
 - 40 ° for 48 Hours and +85 ° for 48 Hours
- Thermal Cycle Test
 - +85°C to 40 ° Cycle Every 6 Hours for 24 Hours
- Humidity Test
 - 95% Humidity, +25 ° C to +50 ° Cycle Every 6 Hours for 72 Hours
- Shock Test
 - 10 Shock's of 20G's on Each of Three Axis (Total of 30 Shocks)
- Functional Test at Temperature
 - 4 Hours at . 40 ° C and 4 Hours at +70 ° C (Operate at Temperature)
- Vibration Test
 - 0.10" Amplitude from 10 to 30 Hz and 0.025+Amplitude from 40 to 60 Hz

ORDERING INFORMATION

Traction and Contactor Panel: Ex. 05-T1KRR144G02

05-	TIKR	R	144	G02
BASIC	ARG1	ARG2	ARG 3	ARG 4

ARG 1 Panel Type

- T1KR- Single Motor
- D1KR- Dual Motor
- R1KR- Reverser Panel Only

ARG 2 Control Type

- T- Standard Traction
- R- Steel Wheel Rail

ARG 3 Voltage

- | | |
|--------------|---------------|
| 036 - 36 VDC | 096 - 96 VDC |
| 048 - 48 VDC | 120 - 120 VDC |
| 072 . 72 VDC | 128 - 128 VDC |
| 080 . 80 VDC | 144 - 144 VDC |

ARG 2 Options

- G01 - uses contactors for lift and steer pump motors
- G02 - uses controls for lift and steer pump motors
- G03 - same as G02, regenerative braking eliminated
- G04 - same as G01, lift pump contactor eliminated
- G05 . same as G01, regenerative braking eliminated
- G06 . same as G01, regenerative braking and lift pump eliminated
- G07 . same as G02, FW contactor added and 14 pin terminal
- G08 . standard dual motor layout with regen braking, lift and steer pump contactors eliminated
- G09 . same as G01, lift pump and steer pump contactors eliminated
- G10 . same as G02, replaced all contactors with 400A contactors

The G02 model reduces stress on pump motors compared to G01 by providing controlled acceleration and current limit for pump motors also speed limits for the lift pump.

The G03 model eliminates regen braking for use in parallel dual motor applications, or where regen is not desired.

The G04 model is for tugs and other vehicles that do not require a lift pump.

The G05 model eliminates regen barking for trucks that use contactors for lift and steer pumps.

The G06 model eliminates regen braking and lift pump contactors.

The G07 model is special for H&K

Hydraulic Pump Panel (EVT100):

05-T1KP-LPW 48 . 72 Volt
 05-T1KP-HPV 96 . 144 Volt

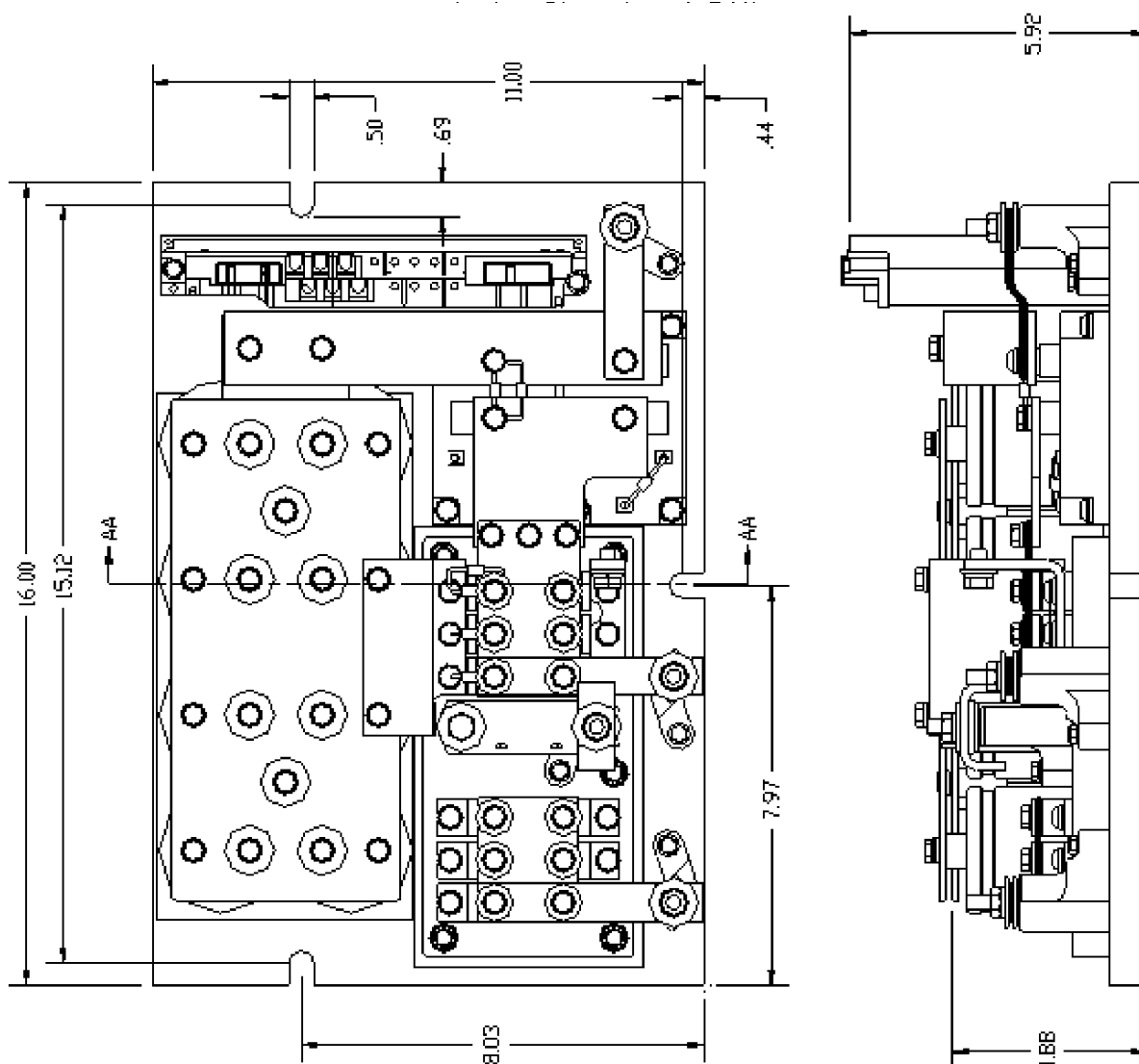
Power Steering Panel:

51-72L400NN5S 72 Volt
 51-HVL125NN5S 96 . 144 Volt

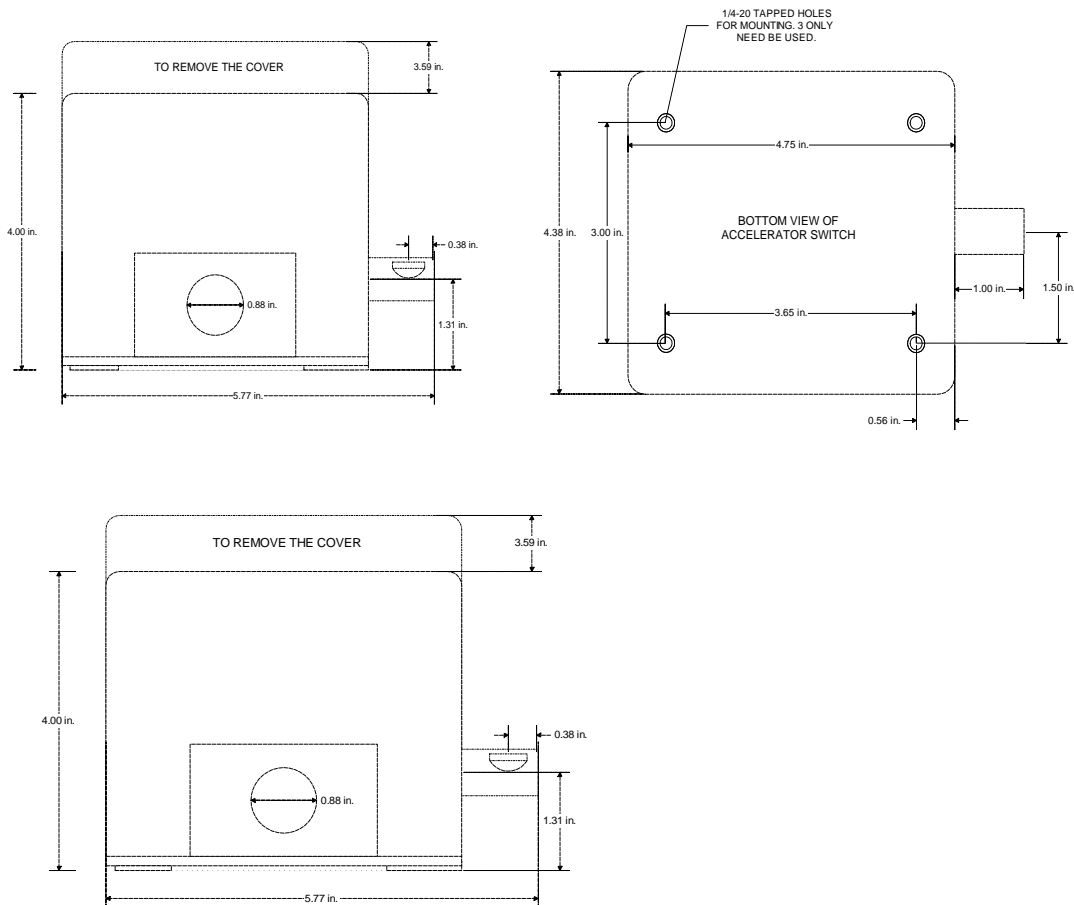
Dash Display with Harness: 05-T1KDD-01

Accelerator Switch Assembly: 05-T1KAC-01

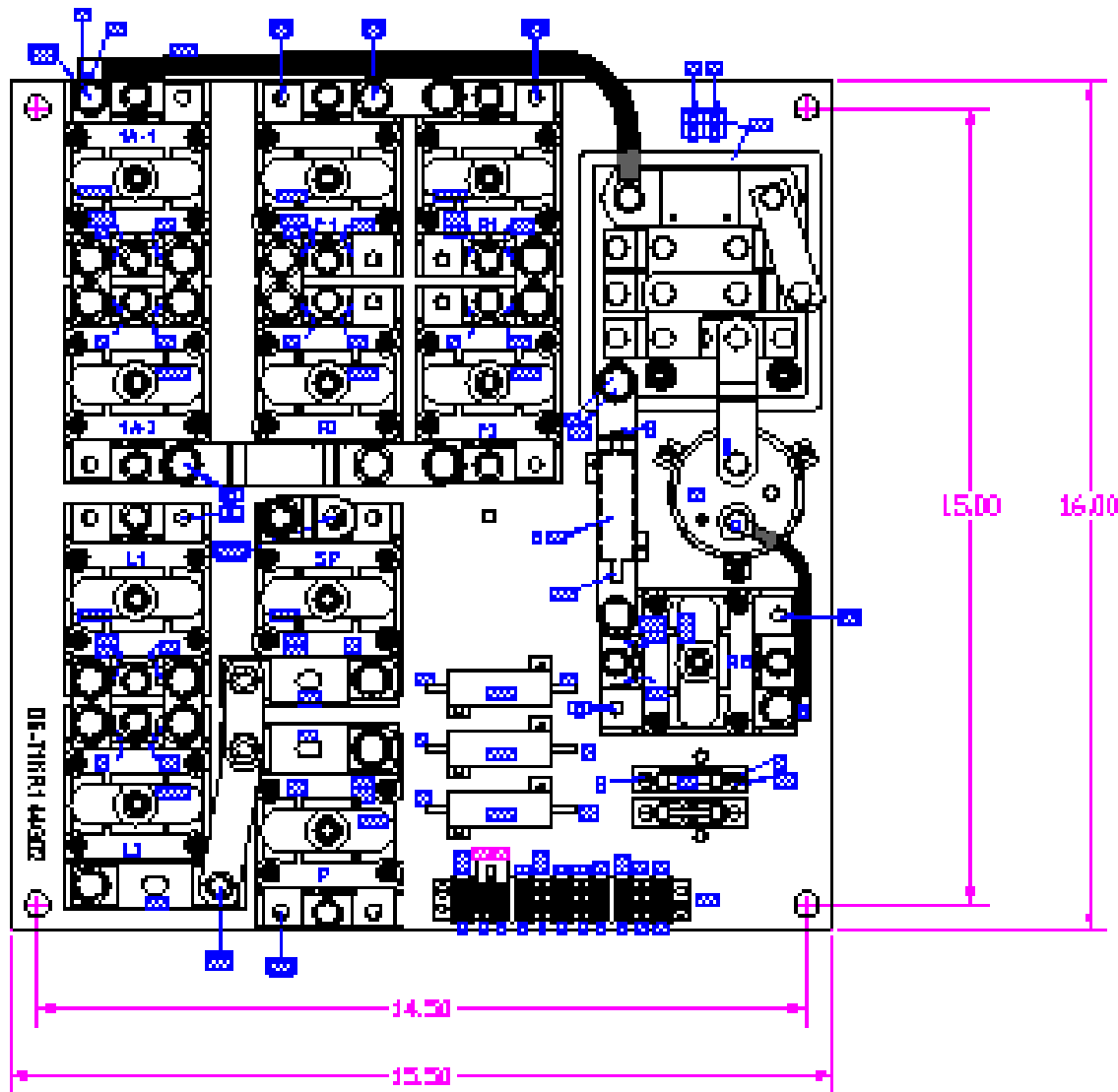
OUTLINE DRAWING – EVT1000 Traction Panel



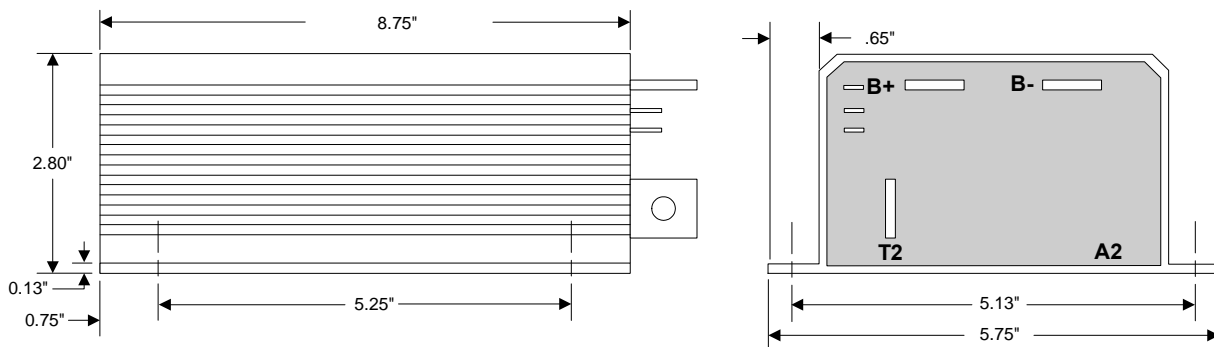
OUTLINE DRAWING – Accelerator



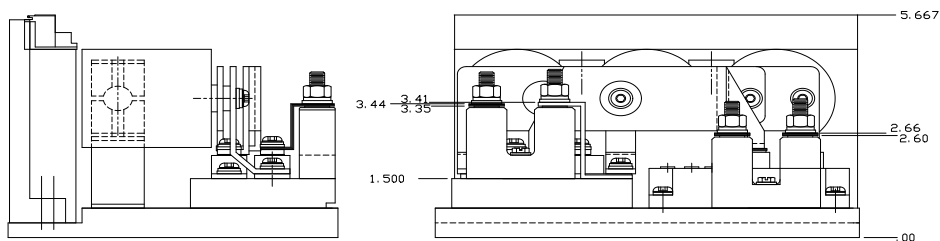
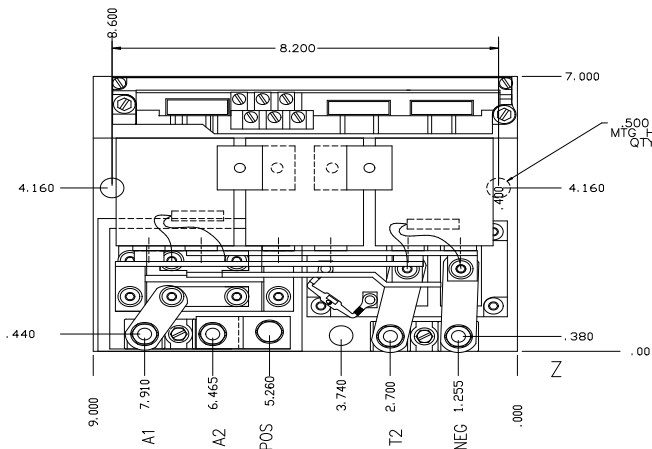
OUTLINE DRAWING – Contactor Panel



OUTLINE DRAWING – Steer Pump Panel



OUTLINE DRAWING – Hydraulic Pump Panel



OUTLINE DRAWING – Dash Display

