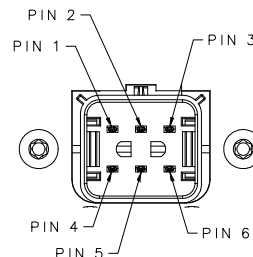


**TECHNICAL DATA:**

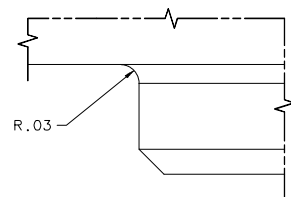
1. BRUSHLESS DC MOTOR (BLDC)
2. SYSTEM VOLTAGE: 48 VDC
3. CONTINUOUS INPUT POWER: ≥ 1.5 kW (2 HP)
4. PEAK OUTPUT POWER: ≥ 3 kW (4hp)
5. OPERATING/SWITCHING FREQUENCY: 16.6 kHz
6. MOTOR SPEED: 1500 RPM TO 2900 (±5%)
7. MAX CONTINUOUS CURRENT: 32 AMPS/MOTOR
8. OVER TEMPERATURE PROTECTION: MAXIMUM CASE TEMP IS 290F
9. MOTOR ENCLOSURE RATING: IP 65
10. AMBIENT OPERATING TEMPERATURE: -10 TO 110 F (-23 TO 43 C)
11. THE 3Ø 8 AWG MOTOR LEADS (A, B, C) NEED TO CONNECT TO THE RESPECTIVE A, B, C TERMINALS ON THE CONTROLLER, USING 1/4" RING TERMINALS ON BOTH ENDS.
12. MOTORS MUST BE MOUNTED ON TOP OF THE DECK WITH THE ENTIRE HOUSING EXPOSED TO 1 MPH AIRFLOW (MINIMUM) IN THE MOUNTING ORIENTATION SHOWN.

PIN 1 = NO CONNECTION  
 PIN 2 = GROUND  
 PIN 3 = +15V  
 PIN 4 = HALL SENSOR A  
 PIN 5 = HALL SENSOR B  
 PIN 6 = HALL SENSOR C

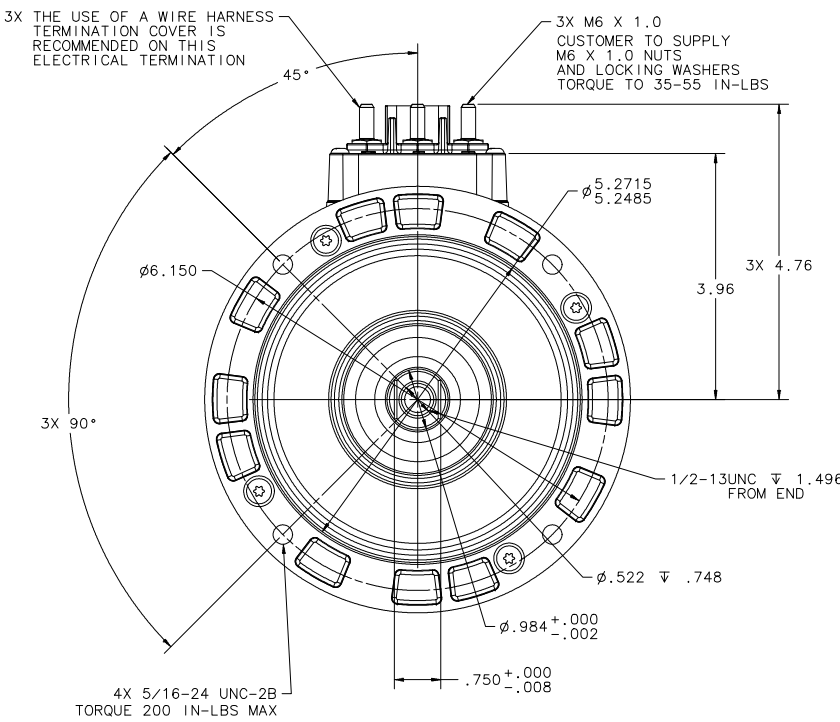
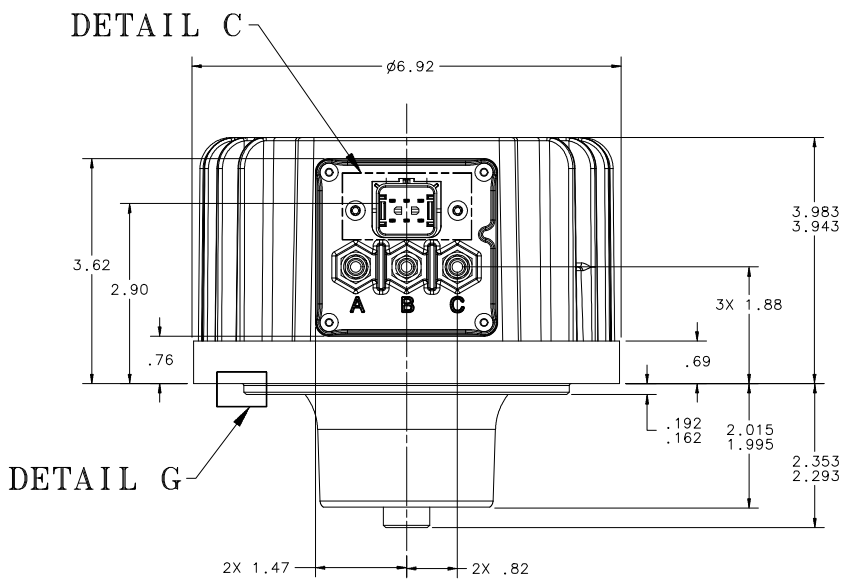
6 PIN MOLEX CONNECTOR P/N 19429-0036 WITH TERMINAL P/N 19417-0048 IS USED ON BOTH DECK MOTORS. THE MATING CONNECTOR IS MOLEX P/N 19418-0011 WITH MOLEX TERMINAL P/N 19420-0010 (PACKAGE TYPE) OR P/N 19420-0002 (REEL TYPE). USE 20 AWG WIRE.



**DETAIL C**  
SCALE 2:1

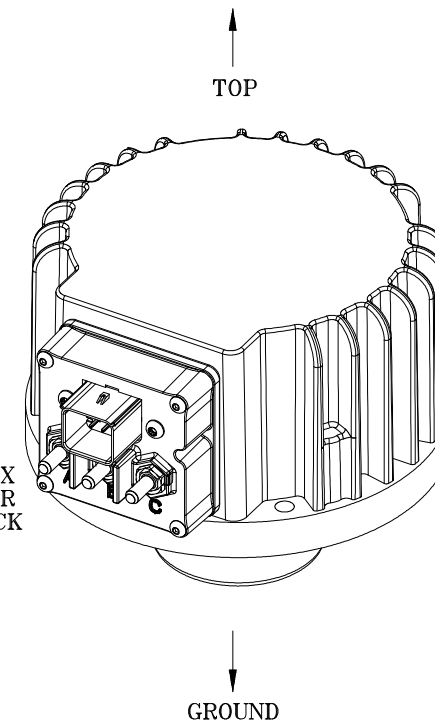


**DETAIL G**  
SCALE 10:1



**BRUSHLESS DC MOTOR (BLDC)**  
**1.5 kW**  
**P/N 53316**

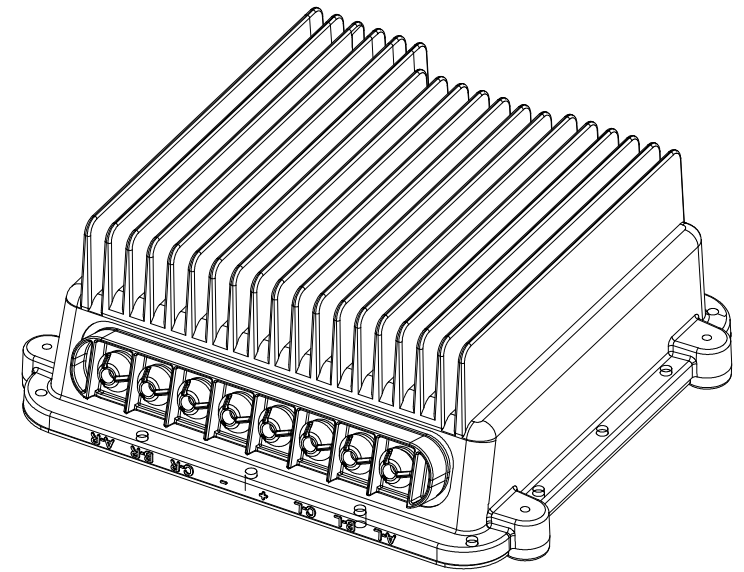
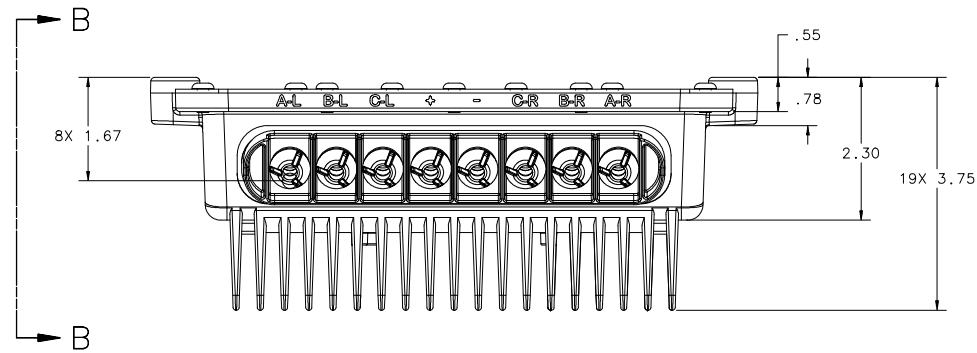
CONNECTOR BOX  
 FACING REAR OR  
 CENTER OF DECK



NOTICE - THIS DRAWING CONTAINS HYDRO-GEAR PROPRIETARY INFORMATION. NEITHER RECEIPT NOR POSSESSION THEREOF CONFERS ANY RIGHT TO REPRODUCE, USE, OR DISCLOSE, IN WHOLE OR PART, ANY SUCH INFORMATION WITHOUT WRITTEN AUTHORIZATION FROM HYDRO-GEAR. THE SPECIFICATIONS AND PRODUCT PROFILE DEPICTED HEREIN ARE APPROXIMATE REPRESENTATIONS SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION. CONSULT YOUR HYDRO-GEAR REPRESENTATIVE TO OBTAIN THE ENGINEERING INFORMATION APPROPRIATE TO YOUR APPLICATION.

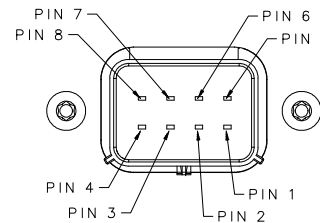
**TECHNICAL DATA:**

1. INPUT VOLTAGE: 48 VDC
2. CONTROLLER IS DESIGNED TO WORK WITH A MAXIMUM OF TWO 53316 MOTORS.
3. MAXIMUM CASE TEMP IS 212 F
4. MAX CONTINUOUS CURRENT: 32 AMPS/SIDE.
5. ENCLOSURE RATING: IP 65
6. AMBIENT OPERATING TEMPERATURE: -10 TO 110 F (-23 TO 43 C)
7. CONTROLLER MUST BE MOUNTED UNDER VEHICLE WITH THE ENTIRE HOUSING EXPOSED TO 3 MPH AIRFLOW (MINIMUM) IN THE MOUNTING ORIENTATION SHOWN.



- PIN 1 = JUMPER PIN 1,3,4
- PIN 2 = (OPTIONAL) CONTACTOR COIL GROUND (THE + VOLTAGE FOR CONTACTOR COIL IS TO BE WIRED DIRECTLY TO THE BATTERIES)
- PIN 3 = JUMPER PIN 1,3,4
- PIN 4 = JUMPER PIN 1,3,4
- PIN 5 = PTO ON (MASTER TRACTION CONTROL PIN A4)
- PIN 6 = IGNITION (KEY ON)
- PIN 7 = NO CONNECTION
- PIN 8 = NO CONNECTION

SEE DETAIL C ON SHEET 1 FOR 6 PIN CONNECTOR DETAILS



**DETAIL D**  
SCALE 2:1

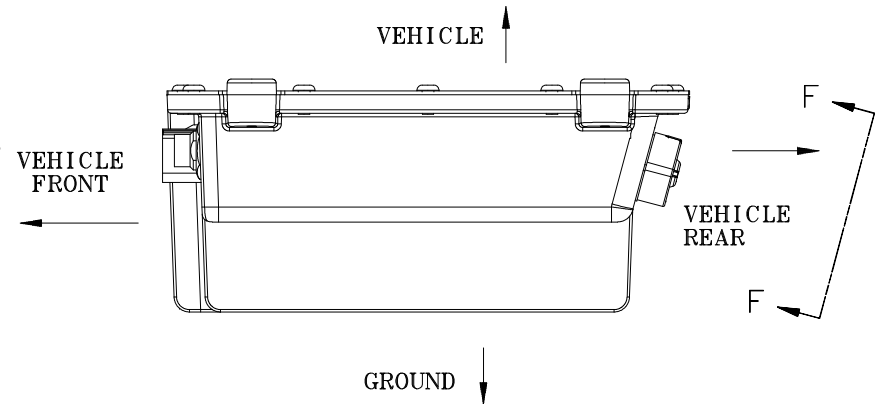
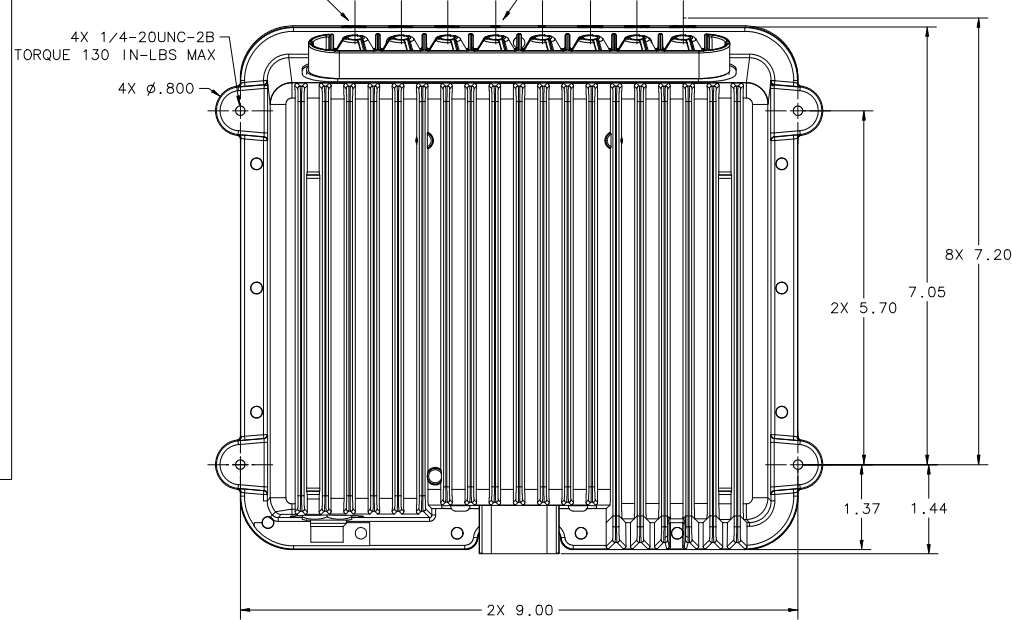
A SINGLE 8 PIN MOLEX CONNECTOR P/N 19427-0017 IS USED ON THE DECK CONTROLLER FOR ALL SIGNAL CIRCUITS. THE MATING WIRE HARNESS CONNECTOR IS MOLEX P/N 19418-0001 WITH MOLEX TERMINAL P/N 19420-0002. USE 20 AWG WIRE.

8X M6 X 1.0 CUSTOMER TO SUPPLY M6 X 1.0 NUTS AND LOCKING WASHERS TORQUE TO 35-55 IN-LBS

8X THE USE OF A WIRE HARNESS TERMINATION COVER IS RECOMMENDED ON THIS ELECTRICAL TERMINATION

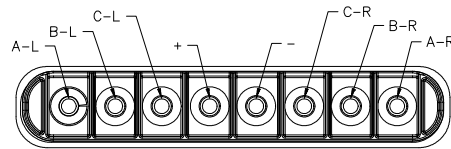
4X 1/4-20UNC-2B TORQUE 130 IN-LBS MAX

4X Ø.800



REQUIRED MOUNTING ORIENTATION  
**VIEW B-B**  
SCALE 1:1

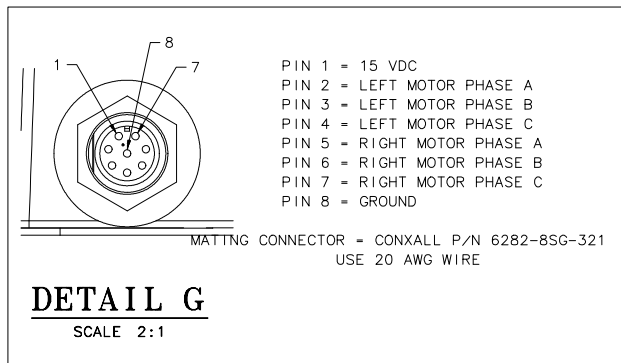
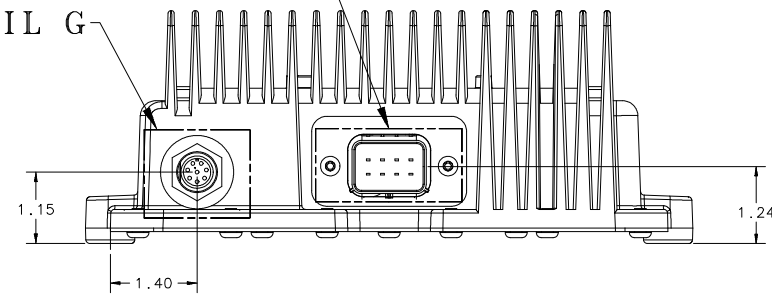
- CONTROLLER A-L = \*A\* ON LEFT DECK MOTOR (8 AWG)
- CONTROLLER B-L = \*B\* ON LEFT DECK MOTOR (8 AWG)
- CONTROLLER C-L = \*C\* ON LEFT DECK MOTOR (8 AWG)
- CONTROLLER +-+ = BATTERY POSITIVE (+ 48 VDC) (2 AWG)
- CONTROLLER +- = BATTERY GROUND (2 AWG)
- CONTROLLER C-R = \*C\* ON RIGHT DECK MOTOR (8 AWG)
- CONTROLLER B-R = \*B\* ON RIGHT DECK MOTOR (8 AWG)
- CONTROLLER A-R = \*A\* ON RIGHT DECK MOTOR (8 AWG)



**VIEW F-F**  
SCALE 1:1

**DETAIL D**

**DETAIL G**



- PIN 1 = 15 VDC
- PIN 2 = LEFT MOTOR PHASE A
- PIN 3 = LEFT MOTOR PHASE B
- PIN 4 = LEFT MOTOR PHASE C
- PIN 5 = RIGHT MOTOR PHASE A
- PIN 6 = RIGHT MOTOR PHASE B
- PIN 7 = RIGHT MOTOR PHASE C
- PIN 8 = GROUND

MATING CONNECTOR - CONXALL P/N 6282-8SG-321  
USE 20 AWG WIRE

**DETAIL G**  
SCALE 2:1

DECK MOTOR CONTROLLER  
CENTER DISCHARGE  
P/N 53992

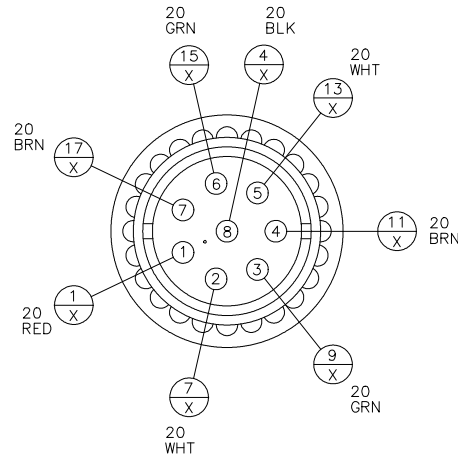
DECK MOTOR CONTROLLER  
RIGHT SIDE DISCHARGE  
P/N 53283

SHEET 2 OF 3

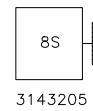
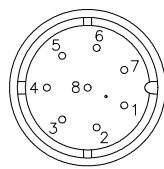
<b>HYDRO-GEAR</b>		DATE DRAWN: 05/29/08	DATE: 05/29/08
1411 S. HAMILTON ST., SULLIVAN, IL 61951 PHONE (217) 728-2281		DRAWN BY: JLP	SCALE: FULL
NAME: DECK SYSTEM SALES DRAWING		REVISION DATE: 02/23/12	PART NUMBER: 71865

NOTES :

1. WIRE IS TXL
2. HRNS IS BRAIDED
3. HRNS MUST BE 100% CONT. CHECKED.
4. SEE PROCESS

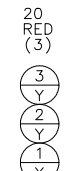


FRONT VIEW



5.5

.350



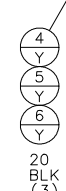
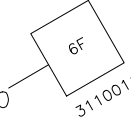
58.0

.350

2.0

ID LABEL

LABEL - 7210903 LEFT

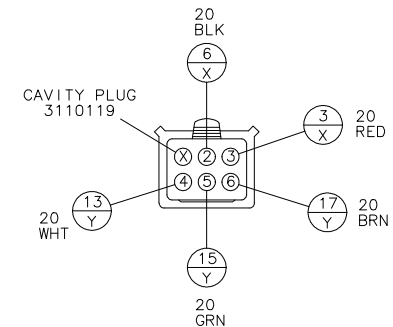
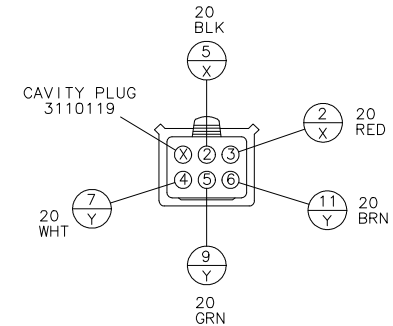
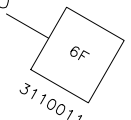


58.0

.350

2.0

LABEL - 7210903 RIGHT



NOTES :

1. DIMENSIONS ARE IN INCHES.
2. WIRE DIMENSIONS ARE TO WIRE ENDS. HARNESS DIMENSIONS ARE TO END OF COVERING, BETWEEN BREAKOUT CENTERS, AND TO SIDE OF COVERING FOR BREAKOUT LENGTHS.
3. SEE CIRCUIT CHART FOR CIRCUIT DETAILS.
4. HARNESS COVERING IS CONVOLUTED CONDUIT.
5. TAPE CONDUIT AT ENDS AND BREAKOUTS.
6. CONNECTOR DETAILS SHOWN FROM WIRE ENTRY END.
7. ALL NOTES ARE FOR STANDARD HRNS ASS'Y UNLESS OTHERWISE SPECIFIED.

<b>HYDRO-GEAR</b>		FRAME E	11-DEAS
1411 S. HAMILTON ST., SULLIVAN, IL 61951 PHONE (217) 728-2581		DATE DRAWN	05/29/08
NAME DECK SYSTEM SALES DRAWING		DRAWN BY	JLP
PART NUMBER 71865		SCALE	FULL
		REVISION DATE	02/23/12