



APPENDIX A D55-RD ELECTRICAL INFORMATION

LT70HD Remote DCS

Rev. B4.02+

Component List		
Item	Wood-Mizer Part No.	Description
A1	034499	Alternator, 190 Amp
B1	038659	Transducer, Balluff Style Z
CB1	053441	Breaker, 80A Hi-Amp Surface Mount, Motor Control Module
CB2	053440	Breaker, 60A Hi-Amp Surface Mount, Engine Control Module
CB3	053440	Breaker, 60A Hi-Amp Surface Mount, Debarker Option
CB4	053464	Breaker, 10A Manual Reset, BATT Circuit
CB5	053439	Breaker, 5A Manual Reset, Start
CBL1	006029	Cable Assembly, M12 Transducer Replacement
CBL2	006036	Cable Kit, Accuset 2 Comm Replacement
CBL3	069446 ¹	Cable Assembly, DCS HCM to ECM CANBus
CBL4	069447 ¹	Cable Assembly, DCS HCM to Head-Mounted Control
CBL5	053696	Cable Assembly, Dual M12 to D-Sub
CBL6	069444	Cable Assembly, CANBus Receptacle
CBL7	069678 ²	Diode OR Assembly, Up/Down Brake
CR1-CR2	069557	Relay, Yanmar D55T3 Main/Rack Actuator
CR3	069558	Relay, Yanmar D55T3 Starter
CR4	069559	Relay, Yanmar D55T3 Preheater/Starting Aid
D1 - D3, D20	015426	Diode Assembly, Solenoid Coil Chassis
E1	038658	Magnet, Balluff Transducer
ECM	053438	Module Assembly, DCS Engine Control
F1	053340	Fuse, 450A 32V Mega
F2	053339	Fuse, 225A 32V Mega
F3	052164-D55T3	Fuseholder, Yanmar D55T3 Eng Feed Replacement
	024150-10	Fuse, 10 Amp ATO Blade Red
F4	024150-10 ³	Fuse, 10 Amp ATO Blade Red
G1	025841	Battery, 12 Volt (See Battery Specifications)
H1	015401	Hour Meter, 12 Volt DC
HCM	069448	Module Assembly, DCS Hydraulic Control
HMI	053196	PCB Assembly, DCS HMI
	053329	Display, DCS HMI
	057836	Switch, DCS Front Membrane
HN20	021137	Horn, Debarker Warning
JS1-2	053304	Joystick, DCS Control
KS1	053420	Key Switch, DCS
L1 - L3, L20	016371	Solenoid Kit, 200A 12V SPST (Includes diode D1-D4)
L4 - L21	025834	Coil, 12VDC Hydraulic Valve
L31	051335	Relay, ISO 12V Coil w/Diode
M1	024169	Motor, 3/4HP 12VDC TEFC Power Feed
M2	053682	Motor, 1HP 12VDC Up/Down
M3, M21	053421	Motor Assembly, DCS Blade Guide/Dbkr In/Out
M4	053428	Motor, DCS Autoclutch Replacement
M5, M6	052807	Motor, 12 Volt Hydraulic Pump
M8	053431	Pump Assembly, DCS LubeMizer
M20	023688	Motor, 12VDC 3/4HP TEFC w/Base 7/8" Dia. Shaft
MCM	057821HS-FR	Motor Control Kit, High Speed Field Replacement
P1	053443	Socket, 12V Accessory
PS1	050368	Power Supply, Laser w/Connector

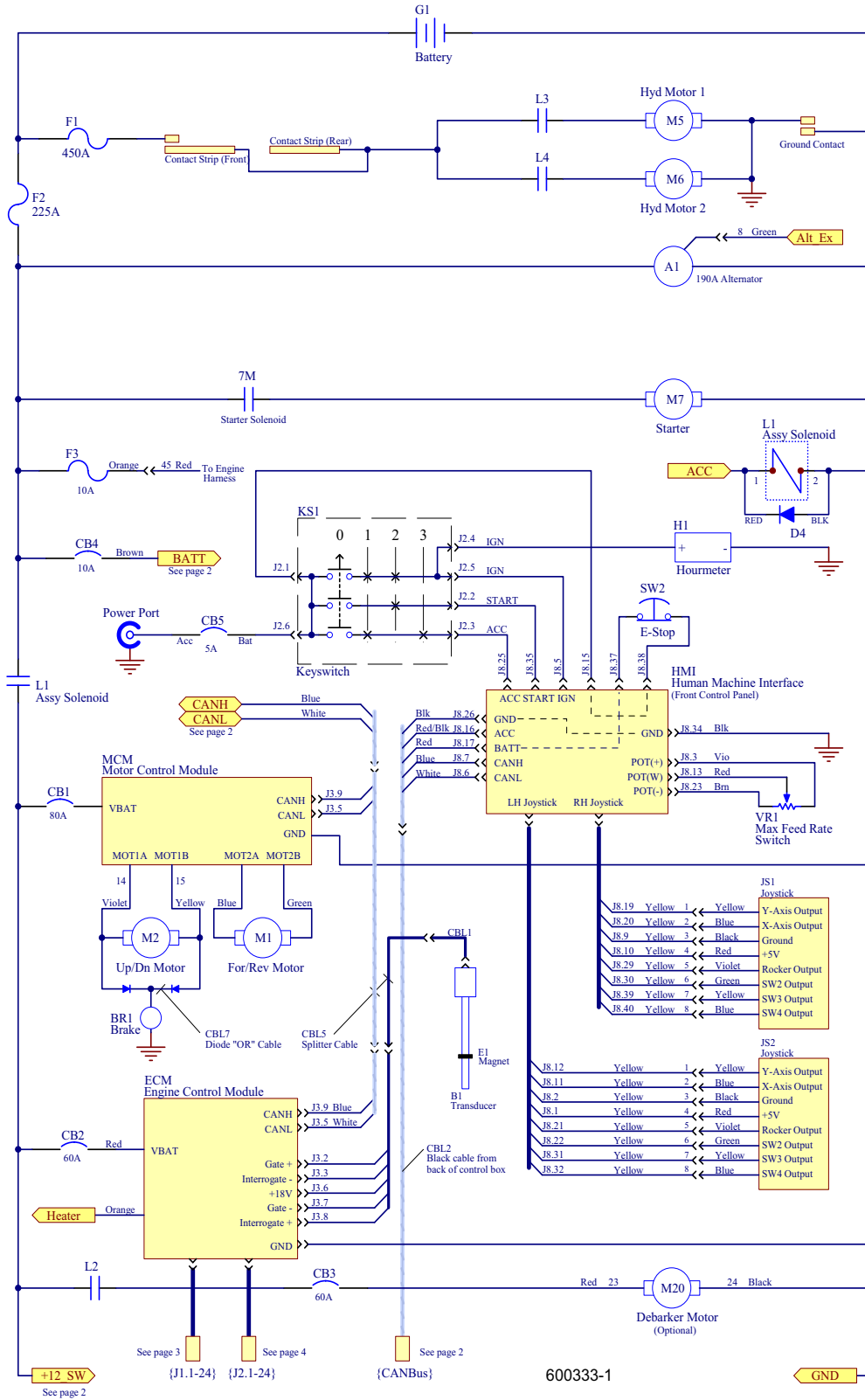
Component List		
Item	Wood-Mizer Part No.	Description
R1	069376	Relay Assy, Yanmar D55T3 Throttle (Includes L31)
R2	065165	Sender, Oil Pressure 0-150PSI x 1/8-27 NPT
R3	065164	Sender, Water Temperature 250F/120C M16x1.5
SW2	050528	Switch Operator, 40mm Red E-Stop ZB4
	025161	Switch Body, 1NC 22mm ZB4
SW3-4	053430	Sensor Assembly, DCS Autoclutch Proximity Magnet
VR1	053290	Switch Assembly, DCS Potentiometer

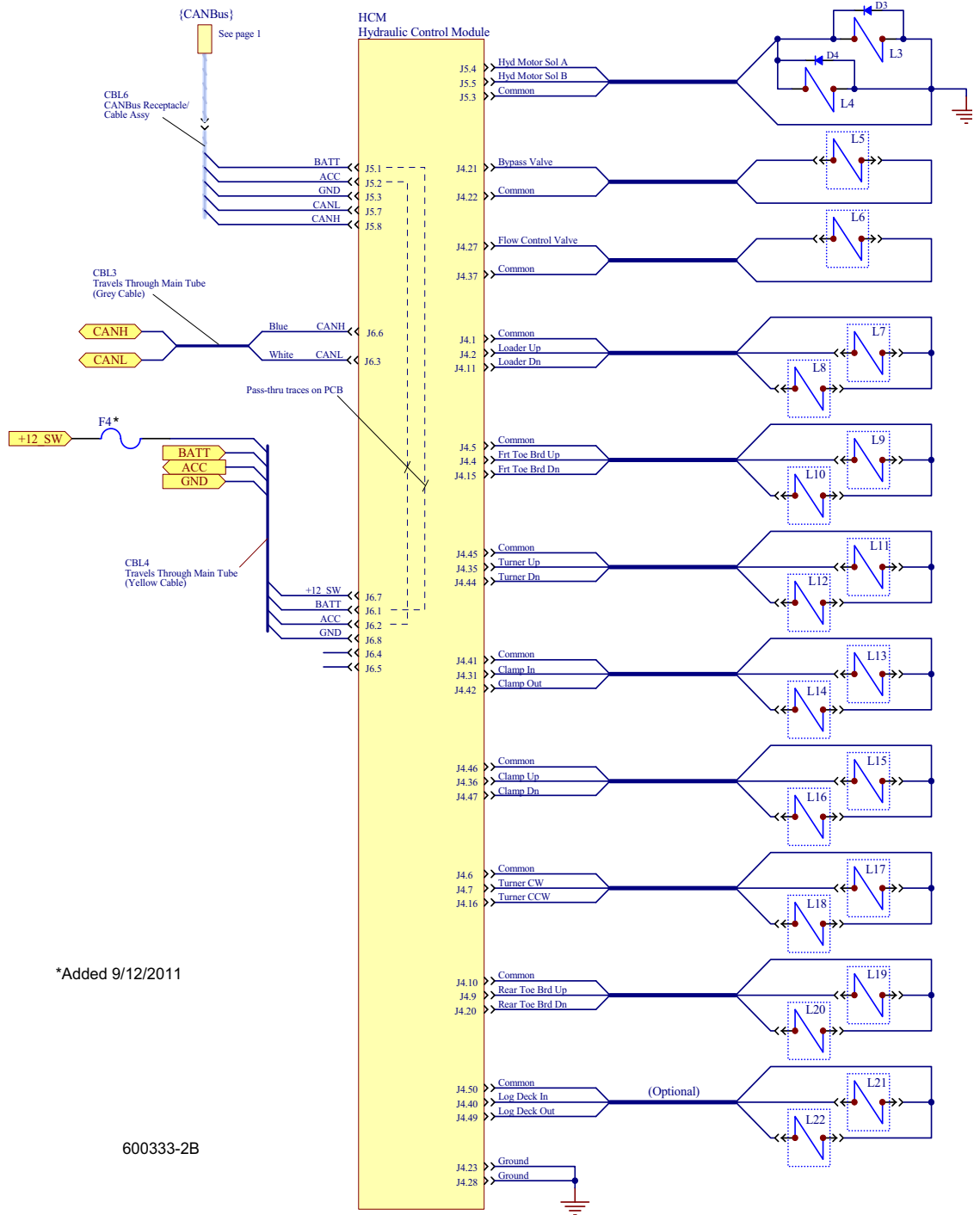
¹ Removed Rev. B5.00.

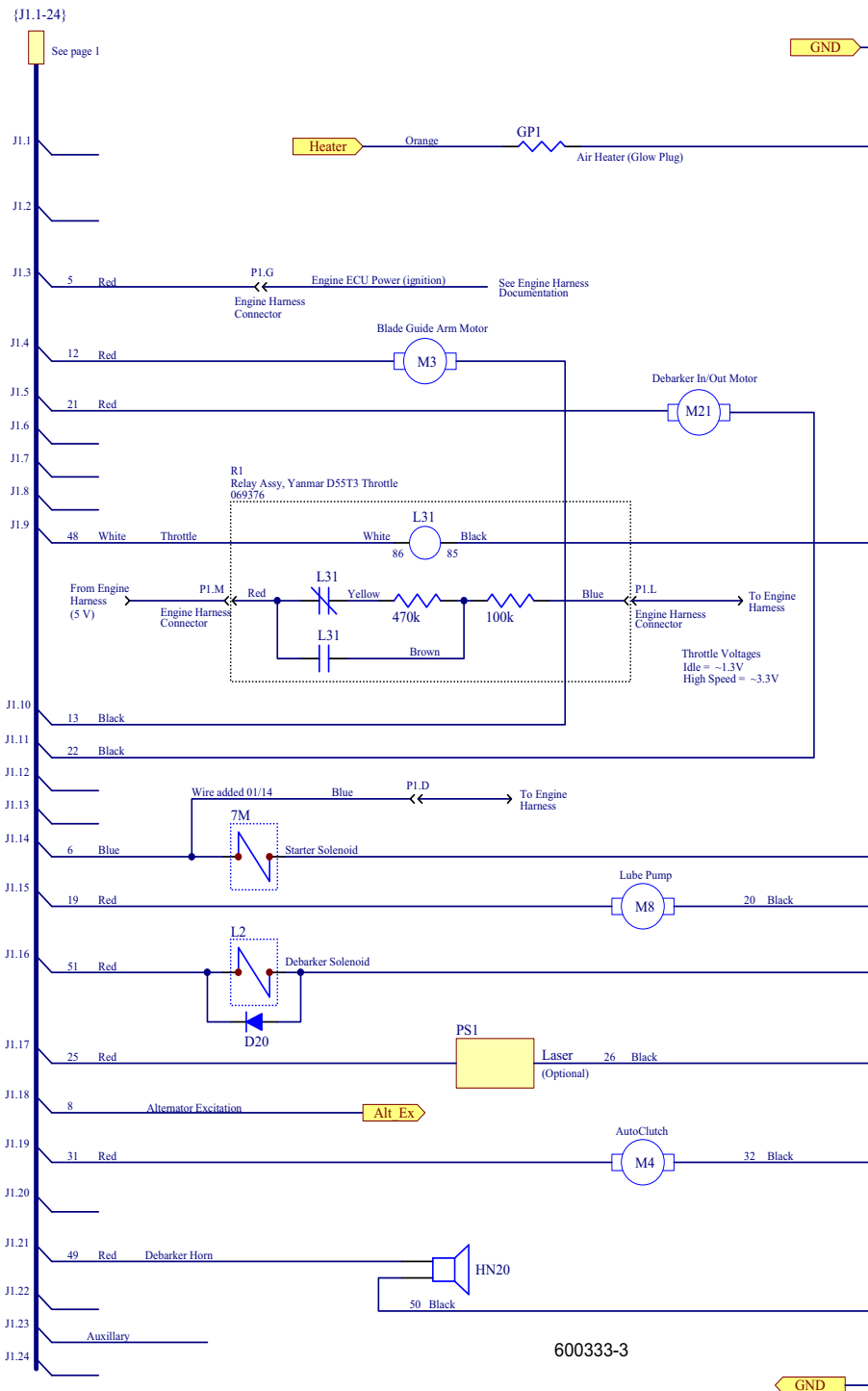
² Up/Down Brake Diode OR Assembly 069678 added LT70HD Rev. B4.11 to prevent the brake from de-energizing while moving the saw head slowly. Use retrofit kit 069678-FR to retrofit previous revisions.

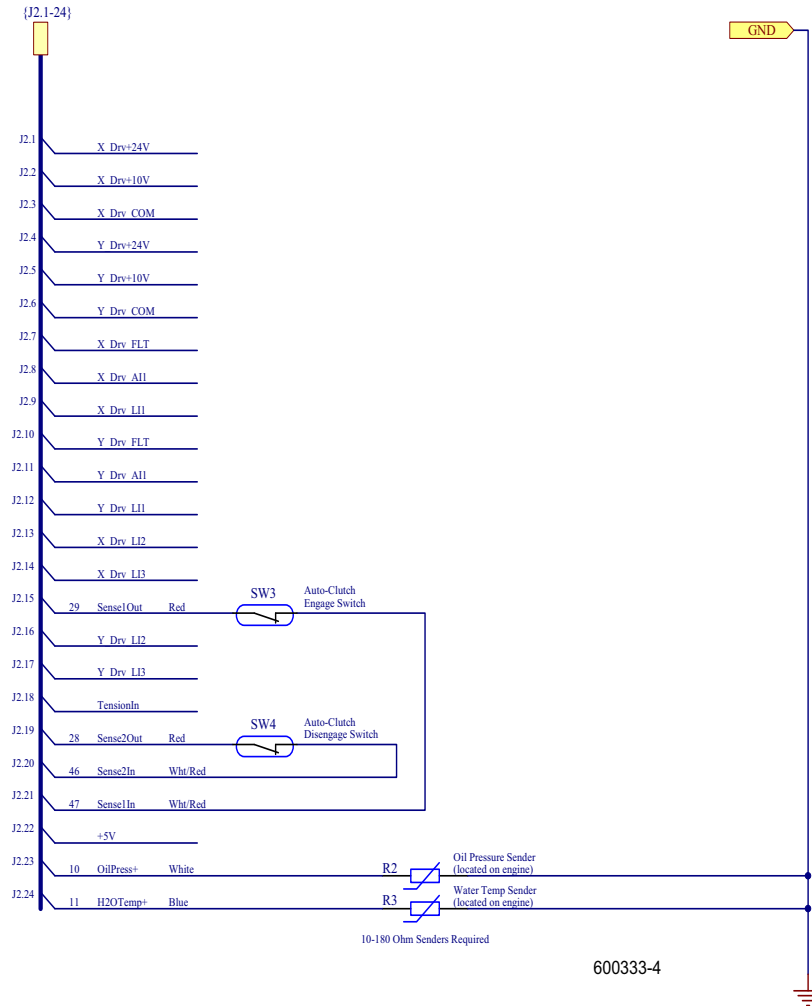
³ Added after 9/12/2011. Required when ordering the replacement yellow trolley cable (069447) now modified to include 1/4" quick male terminal on its blue wire. [See Form #1765 DCS Fuse Upgrade Kit](#) for installation instructions.

Battery Specifications							
Group No.	Type No.	Performance Level		Approx. Weight (Wet)	Maximum Overall Dimensions		
		Cranking Performance	Reserve Capacity		Length	Width	Height
31	8A31DTM	800	200	69 lb. (31.3 Kg)	12 15/16" (329 mm)	6 3/4" (171 mm)	9 3/8" (238 mm)





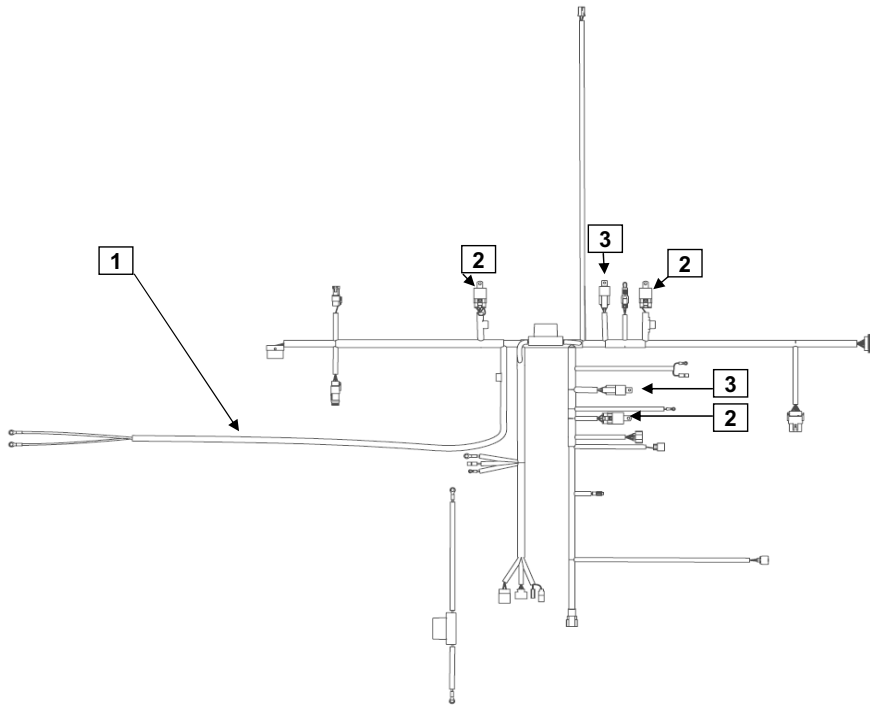






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Item	Lev.	O	Part No.	Description	Quantity	Remarks
1	-	X	119749-91000	Wiring Harness (ECO)	1	
2	--	X	198461-52950	Relay	3	
3	-	X	129927-77930	70A, 12V Relay	2	
4	-		INS-KPH3-0011	Installation Document	1	



MODELS
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4TNV98(T)-Z

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KPH3 - HARNESS KIT
INS-KPH3-0011

600341-1



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Installation Instructions

NOTE: Only the Main and Rack Actuator Relays are required for the function of the Yanmar ECO engines. These relays are supplied with the distributor standard specification engines in the loose parts box. The optional Sub-Relay connector (CR5) is intended to activate 4 optional features such as engine stop switch, droop-switch, ECO lamp, and engine speed monitor. All of these optional features are located in the accessory connector (J18) in the wire harness on pins 3,4,5, and 6. In the event that these features need to be activated one additional relay P/N: 198461-52950 must be ordered from the Yanmar America Part Department.

Yanmar America Part Department Phone #: 1-800-966-7685

1. Connect harness terminals and relays to appropriate locations. See engine wiring harness diagram and schematics provided with the wire harness kit.
2. Use the 8mm hold down clips to attach the wire harness (1) to two 8 mm open thread bores. Thread bore locations can be found on the rear side of the cylinder head and below the alternator on the engine crankcase.
3. After connecting all terminals to appropriate locations, check the following:
 - a) Make sure the wires do not contact the exhaust manifold or muffler and are away from all heat sources.
 - b) Make sure the wires do not contact any sharp or abrasive surfaces.
 - c) Use wire ties to secure the wire harness to the engine.
 - d) Cover all harness terminals not used after assembly is completed

WARNING: Be sure battery cables are connected correctly. Disconnecting either the positive or negative battery cable while the equipment is operating will cause premature failure of electronic components. Also, never weld on equipment with the ECU connected to the wire harness.

NOTE: In the event that the 60" wire harness extension need to be extended please follow the manufacturer's assembly and wiring procedures. Please visit www.deutschip.com and click on the Connector Repair or Helpful Hints link to download a more detailed procedure on how to properly assemble a connector. As always never use scotch locks or butt connectors to extend the wire harness. All extended wires must be soldered and sealed.

Constant Speed Applications:

Enabling Engine Speed Switch #1 -

Locate the 12 pin Deutsch accessory connector and jump pin #2 (ground) with pin #11 engine speed switch #1. Please use the female connector that comes attached to each wire harness to make the connections. This will enable the Engine Speed Switch #1 for constant speed.

Enabling Engine Speed Switch #2 -

Locate the 12 pin Deutsch accessory connector and jump pin #2 (ground) with pin #12 engine speed switch #2. Please use the female connector that comes attached to each wire harness to make the connections. This will enable the Engine Speed Switch #2 for constant speed.

Remote Mounted ECU Applications:

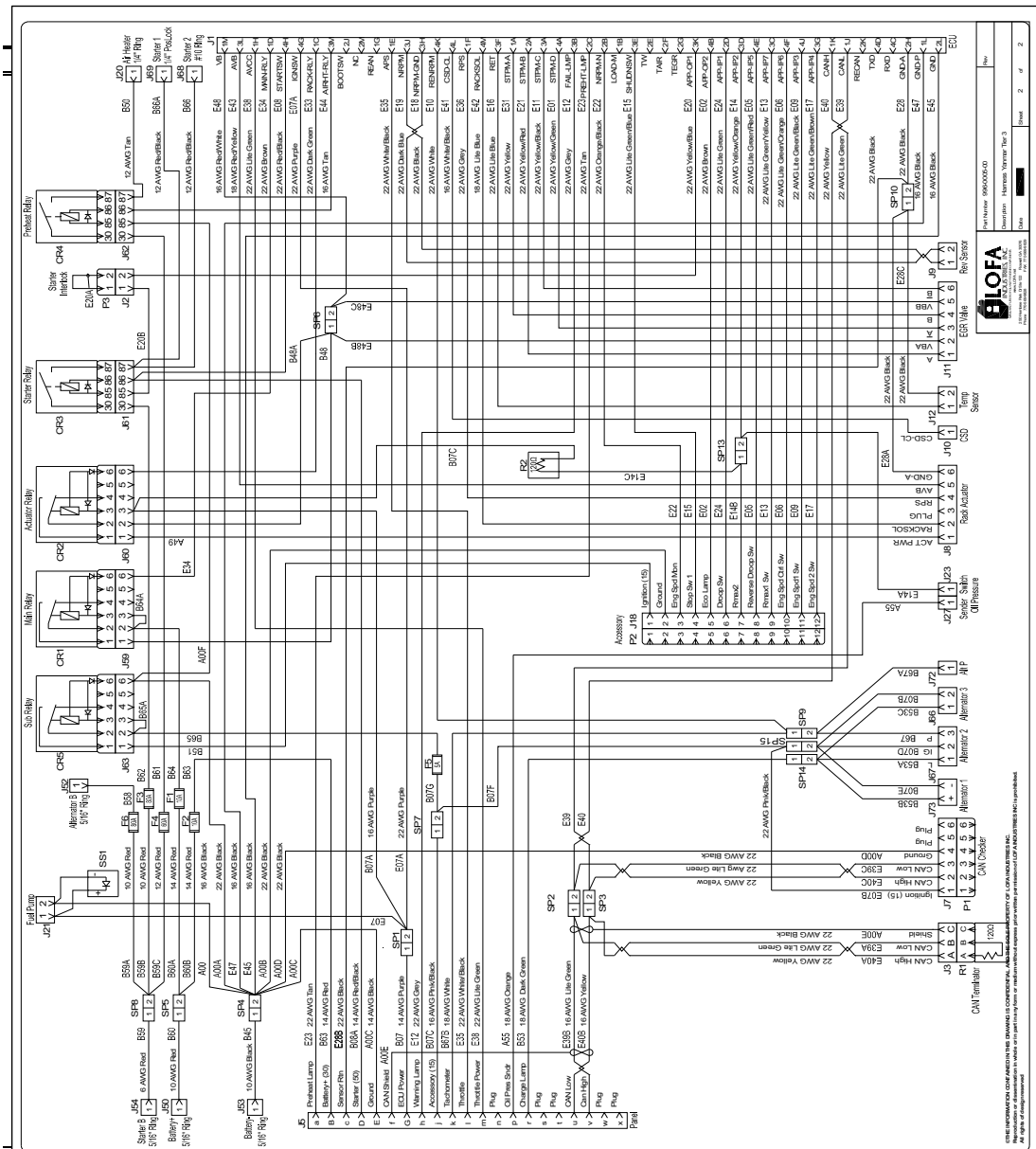
For applications that remote mount the ECU within the wireharnesses reach please follow the following ECU mounting guidelines:

- 1- Install the ECU in a location that is not subject to steam or high-pressure water for cleaning
- 2- Install the ECU in a location that is well ventilated and not subject to direct sunlight.
- 3- Install the ECU so that the connector faces downward. Failure to do so may trap water in the connector, resulting in corrosion of connector pins.
- 4- Ensure no water is trapped inside the coupler when plugging or unplugging the connector. Water inside the couple may corrode connector pins, resulting in malfunctioning of the ECU.

Refer to harness drawing for additional design requirements for consideration of application. A troubleshooting guide is available through Yanmar's Distributor Website or by contacting Yanmar America's Service Department.



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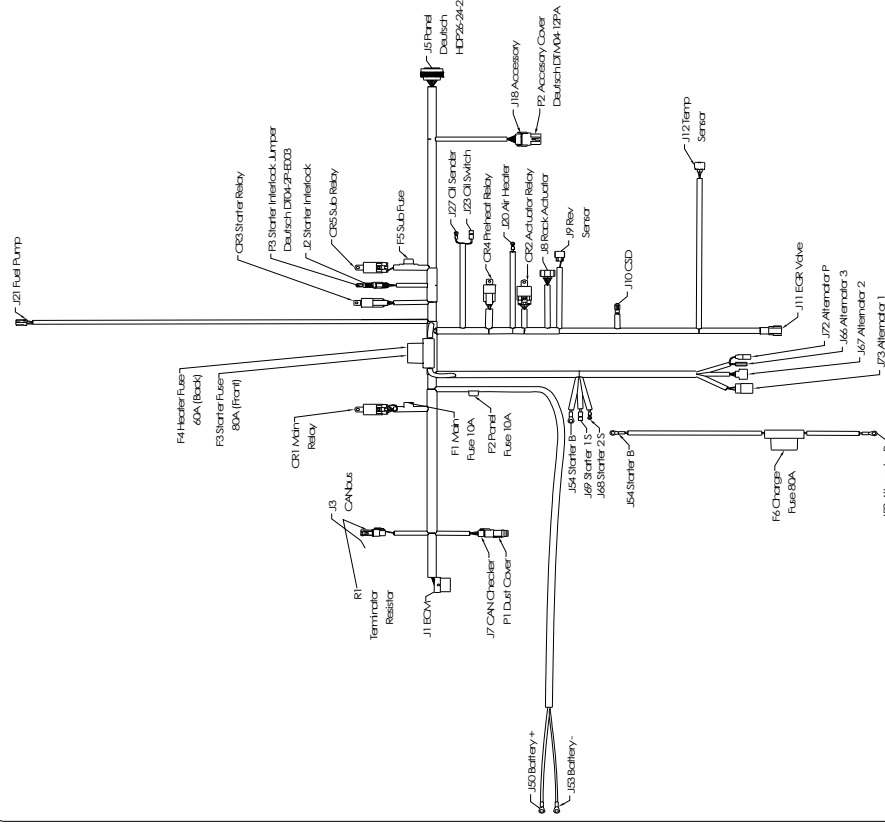




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Notes

- Vibration Resistance: Operating Vibration: 10-50Hz, amplitude 2mm
- Shock Resistance: Operating Vibration: 10G
- Shock Resistance: Damage Limit: 100G
- Relays can be installed directly to the engine.
- Approved starter and parked relays are LCPA/RN341-1270-50 (Sang Chuan 8971/AHS1001).
- Approved main sub and actuator relays are Yanmar RN19840-5293.
- Panel and harness should not be washed with high pressure system.
- Battery should be disconnected prior to doing any service or welding on the equipment.
- Engines should not be shut down by using an oil and battery disconnect.
- Panel isolation mounts should not be installed in oil level.
- Ground connection needs to be clean and free from paint or corrosion.
- Harness should be routed on engine per Yanmar specifications.
- Panel and harness should be tested prior to selling the equipment.
- All warranty claims should be directed to Yanmar.
- Temperature spec: -30° to 50°C
- Oil pressure sensor switch kit for gauging panels use LCPA/RN35030027.
- Any wire removal from isolated conductors must be repaired by the appropriate plug to prevent moisture entry into the conductor.
- Do not use electric grease on isolated conductors.
- Panel limits controlled by ITCO variator engine temperature dependent.



TOLERANCES +/-		Part Number	Rev
.2	.1	996000600	
.XX	.01	Description	Harness Yanmar TM For 3BCVA
.XXX	.005	Date	5/20/2008
ANG	P	Sheet	1 of 2

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