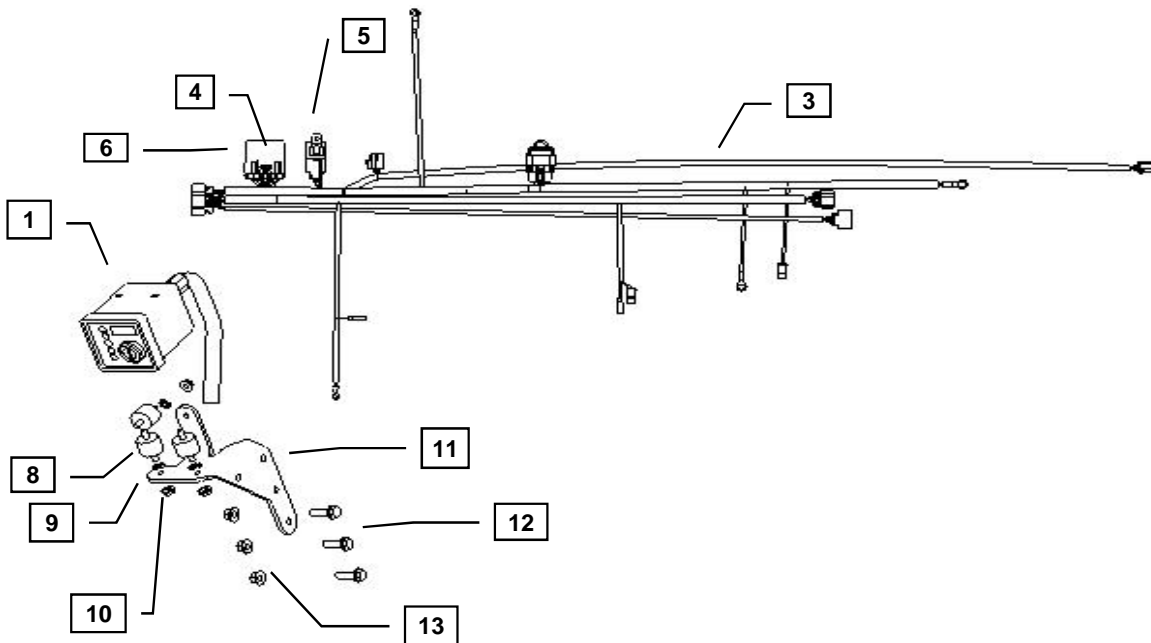




YANMAR CO., LTD.
YANMAR AMERICA CORP.

Item	Part No.	Description	Quantity	Remarks
1	119749-91110	Control Panel (IDI)	1	
2	129689-91190	Ignition Key, Engine Control Panel	1	
3	119749-91100	Wiring Harness (IDI)3	1	(B)
4	119749-91420	Control Module Timer	1	
5	119749-91460	Relay 70A 12V Sealed	1	
6	119749-91440	Control Module Housing	1	
7	1908-00	Switch Retainer	2	
8	129689-92100	Isolator Mount M6 x 1.0	3	
9	129689-91180	Washer, M6 (Star)	3	(A)
10	26366-060002	Nut, M6 x 1.0 (Flanged hex head)	4	
11	119749-91130	Panel Mounting Bracket	1	
12	26106-080252	Bolt, M8 x 1.25 - 25 (Flanged hex head)	2	
13	26366-080002	Nut, M8 x 1.25 (Flanged hex head)	3	



MODELS

2TNV70
 3TNV70
 3TNV76

Remarks: (A) 129689-91180 is not a service part and does not need to be replaced.
 (B) When utilizing the Yanmar harness to a control panel that has 10 ft. or more of wiring between them, you must install a relay, 119749-91400.



Installation Instructions

Hand tighten all bolts and nuts until assembly is completed, then torque according to specifications in Table 1. The numbers in () represent the item numbers.

1. Fasten Control Panel (1) to the Mounting Bracket (11) using Isolators (8), Star Washers (9) and Lock Nuts (10). Star Washers should be installed between isolators and bracket.

NOTE: Make sure Isolators are not twisted during installation to avoid premature failure of components.

2. Assemble Control Panel (1) and Mounting Bracket (11) assembly to injection pump side rear engine leg using M8x1.25 - 25 bolts (12) and M8X1.25 Flange Nuts (13).
3. Connect harness terminals to appropriate locations. See engine wiring harness diagram and schematics provided with panel kit.

NOTE: The spare ring terminal in the kit is for the S-Terminal on the Denso starter. The spade connector, for the Hitachi starter, will have to be replaced with the ring terminal if Denso Starter is equipped.

4. Use the Retainer Clip (7) to mount the Relay (5) to an open thread bore on the cylinder head.
5. After connecting all terminals to appropriate locations, check the following:
 - a) Make sure the wires do not contact the exhaust manifold or muffler.
 - 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 before operation. If at any time during operation, the battery cables are removed, the harness could fail prematurely.

NOTE: Application requiring a harness extension to a control panel over 10Ft in length must use the starter relay at the connector labeled Starter Jumper, 119749-91400.

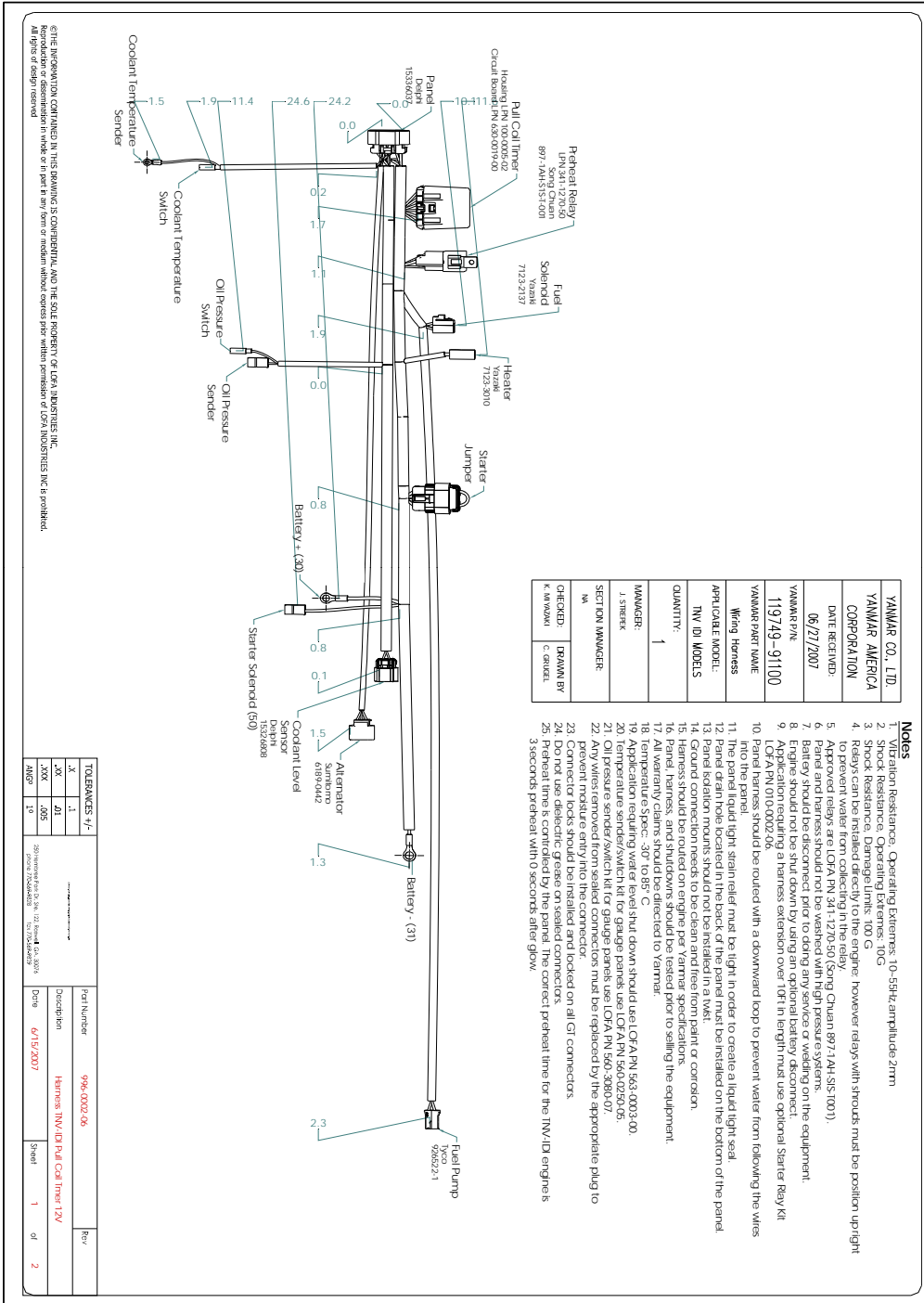
Refer to harness drawing for additional design requirements for consideration of application. A troubleshooting guide is available through Yanmar's Distributor Website or by contacting Yanmar America's Service Department.

Table 1: Proper torque specifications for bolts and nuts.

Diameter x Pitch	Kgf-m	Foot-lbf	N-m
M8 x 1.25	1.5 ~ 2.9	10.6 ~ 20.9	14.4 ~ 28.3
M10 x 1.50	4.5 ~ 5.5	32.5 ~ 39.8	44.0 ~ 54.0
M12 x 1.75	8.0 ~ 10.0	57.8 ~ 72.3	78.4 ~ 98.0



Installation Instructions



YANMAR CO., LTD.	
YANMAR AMERICA CORPORATION	
DATE RECEIVED	06/27/2007
YANMAR P/N	119749-91100
YANMAR PART NAME	Wiring Harness
APPLICABLE MODEL	INV ID MODELS
QUANTITY	1
MANAGER	J. SHRECK
CHECKED BY	K. MAZDAKI
SECTION MANAGER	MM

- Notes**
- Vibration Resistance, Operating Extremes: 10-58Hz/amplitude 21mm
 - Shock Resistance, Operating Extremes: 10G
 - Shock Resistance, Damage Limits: 100 G
 - Relays can be reset directly on the engine however relays with strouds must be position up/right
 - Approved relays are LOFA PN 341-127050 (Song Chuan 897.1M4S151001).
 - Panel and harness should not be washed with high pressure systems.
 - Battery should be disconnected prior to doing any service or welding on the equipment.
 - Engine should not be shut down by using an optional battery disconnect.
 - Approved relays are LOFA PN 341-127050 (Song Chuan 897.1M4S151001).
 - Panel harness should be routed with a downward loop to prevent water from following the wires into the panel.
 - The panel liquid tight strain relief must be tight in order to create a liquid tight seal.
 - Panel drain hole located in the back of the panel must be installed on the bottom of the panel.
 - Panel drain hoses should not be installed in a wax, grease, oil, paint or corrosion.
 - Panel drain hoses should be installed on engine per Yanmar specifications.
 - Harness should be routed on engine per Yanmar specifications.
 - Panel, harness, and shutdowns should be tested prior to selling the equipment.
 - All warranty claims should be directed to Yanmar.
 - Temperature Spec: -30° to 85° C.
 - Application requiring water level shut down should use LOFA PN 642.0023.00.
 - Approved relays are LOFA PN 341-127050 (Song Chuan 897.1M4S151001).
 - Oil pressure sender/switch kit for gauge panels use LOFA PN 560.3880.07.
 - Any wires removed from sealed connectors must be replaced by the appropriate plug to prevent moisture entry into the connector.
 - Connector locks should be installed and locked on all GT connectors.
 - Do not use dielectric grease on sealed connectors.
 - Do not use dielectric grease on sealed connectors.
 - Preheat time for the INV-ID engines is 3 seconds preheat with 0 seconds after glow.

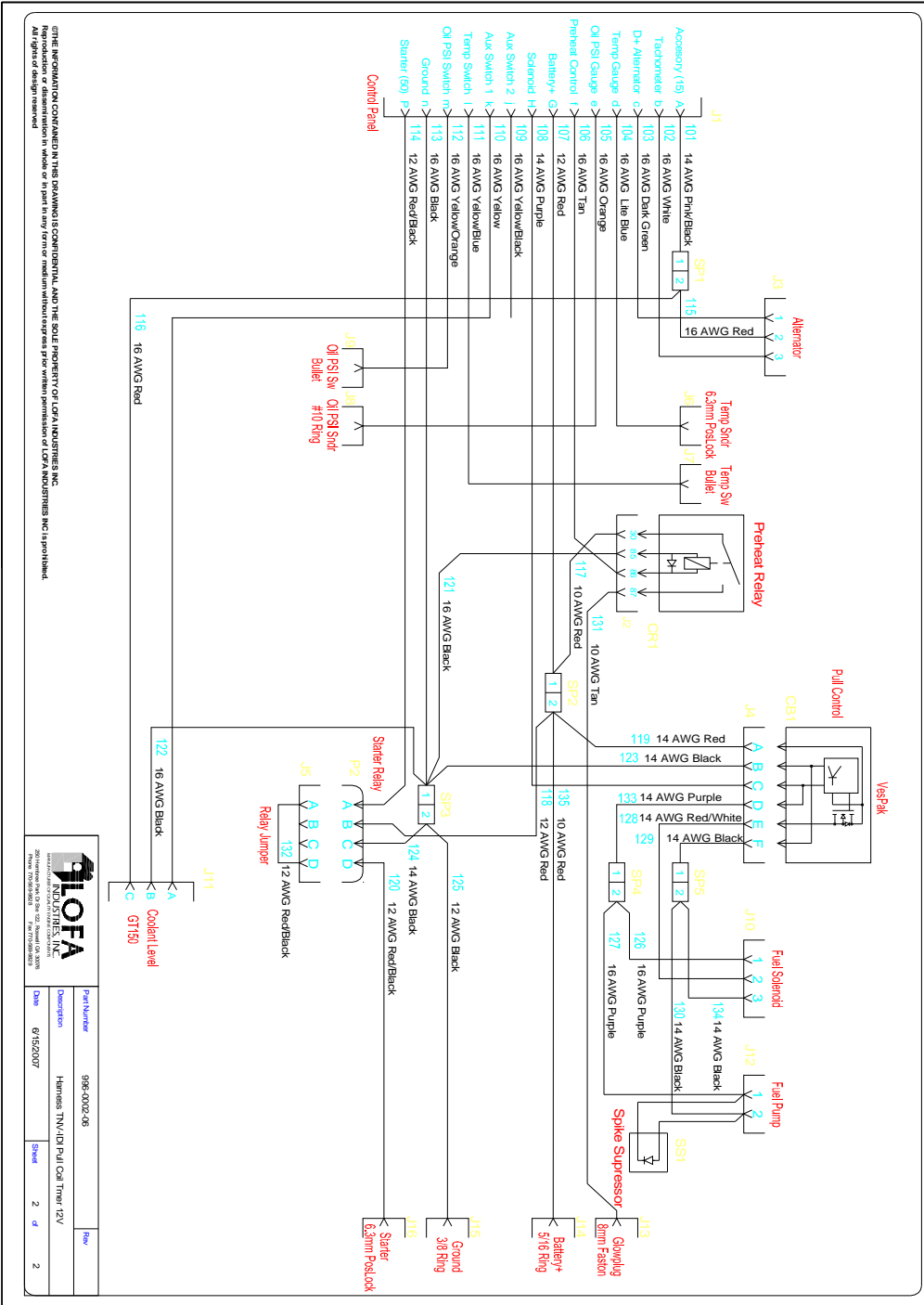
TOLERANCES +/-		Part Number	Rev
X	.1	996-0022-06	
.XX	.01		
.XXX	.005		
MMF	.10		

Date	Description	Sheet	of
6/15/2007	Harness INV ID Pull Coil Line TV	1	2

OTHER INFORMATION CONTAINED IN THIS SPECIFICATION IS THE PROPERTY OF YANMAR AND THE USE, REPRODUCTION, OR DISSEMINATION IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF YANMAR INDUSTRIES, INC. IS PROHIBITED. ALL RIGHTS OF DESIGN ARE RESERVED.



Installation Instructions



THIS INFORMATION CONTAINED IN THIS MANUAL IS CONFIDENTIAL AND THE SOLE PROPERTY OF UCA INDUSTRIES, INC. Reproduction or dissemination in whole or in part in any form or medium without express prior written permission of UCA INDUSTRIES, INC. is prohibited. All rights of design reserved.

