



## Supplement to Yanmar Kit Installation Instructions

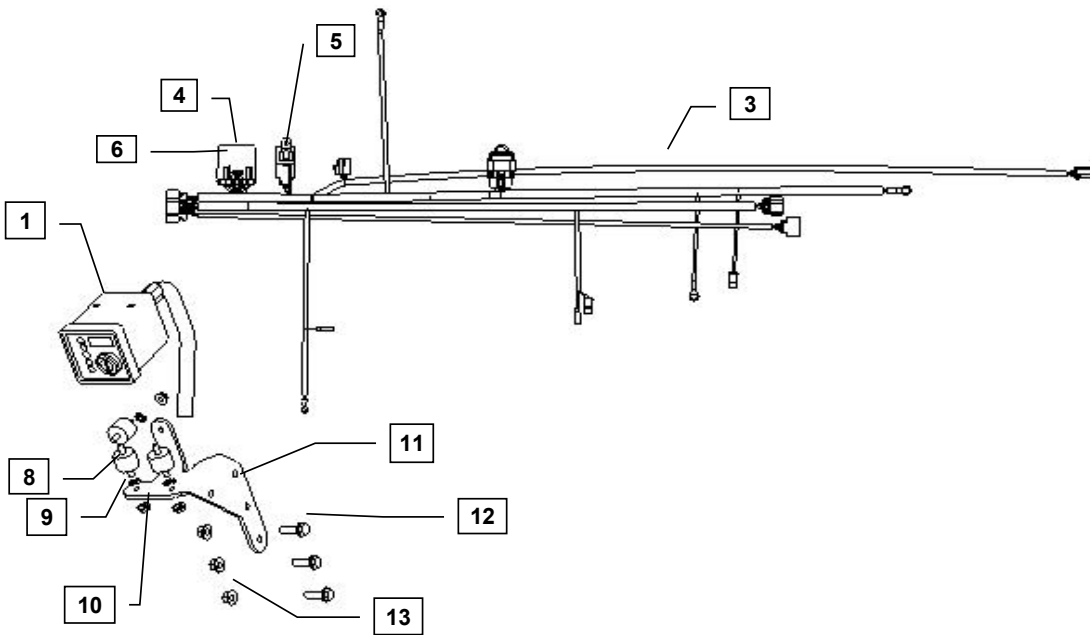
# SAFETY

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This product is designed and intended only for use with a YANMAR engine. All safety and warning information contained in the Yanmar Operation Manual and Service Manual is adopted and incorporated to apply to the components, accessories, and parts that are utilized with Yanmar engines. Follow all instructions and precautions before installing this product, before operating, during operation, and during periodic maintenance procedures for your safety, the safety of others, and to protect the performance of your engine.



Item	Part No.	Description	Quantity	Remarks
1	129689-91110*	Control Panel (DI)	1	
2	129689-91190*	Ignition Key, Engine Control Panel	2	
3	129687-91100*	Wiring Harness (DI) Assembly2	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	129689-91130*	Panel Mounting Bracket	1 (A)	
10	26366-060002*	Nut, M6 x 1.0 (Flanged hex head)	4	
11	129689-91130*	Panel Mounting Bracket	1	
12	26106-080252*	Bolt, M8 x 1.25 - 25 (Flanged hex head)	3	
13	26366-080002*	Nut, M8 x 1.25 (Flanged hex head)	4	



**TIER 2 MODELS**

- 3TNV82A
- 3TNV88
- 3TNV84T
- 4TNV88
- 4TNV84T
- 4TNV98
- 4TNV98T

**TIER 3 MODELS**

- 3TNV82A-GGE
- 3TNV84T
- 4TNV84T-BGGE

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.  
 Note: Service parts are denoted by an asterisk. To replace non-service parts, the entire kit will need to be purchased.



## 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.

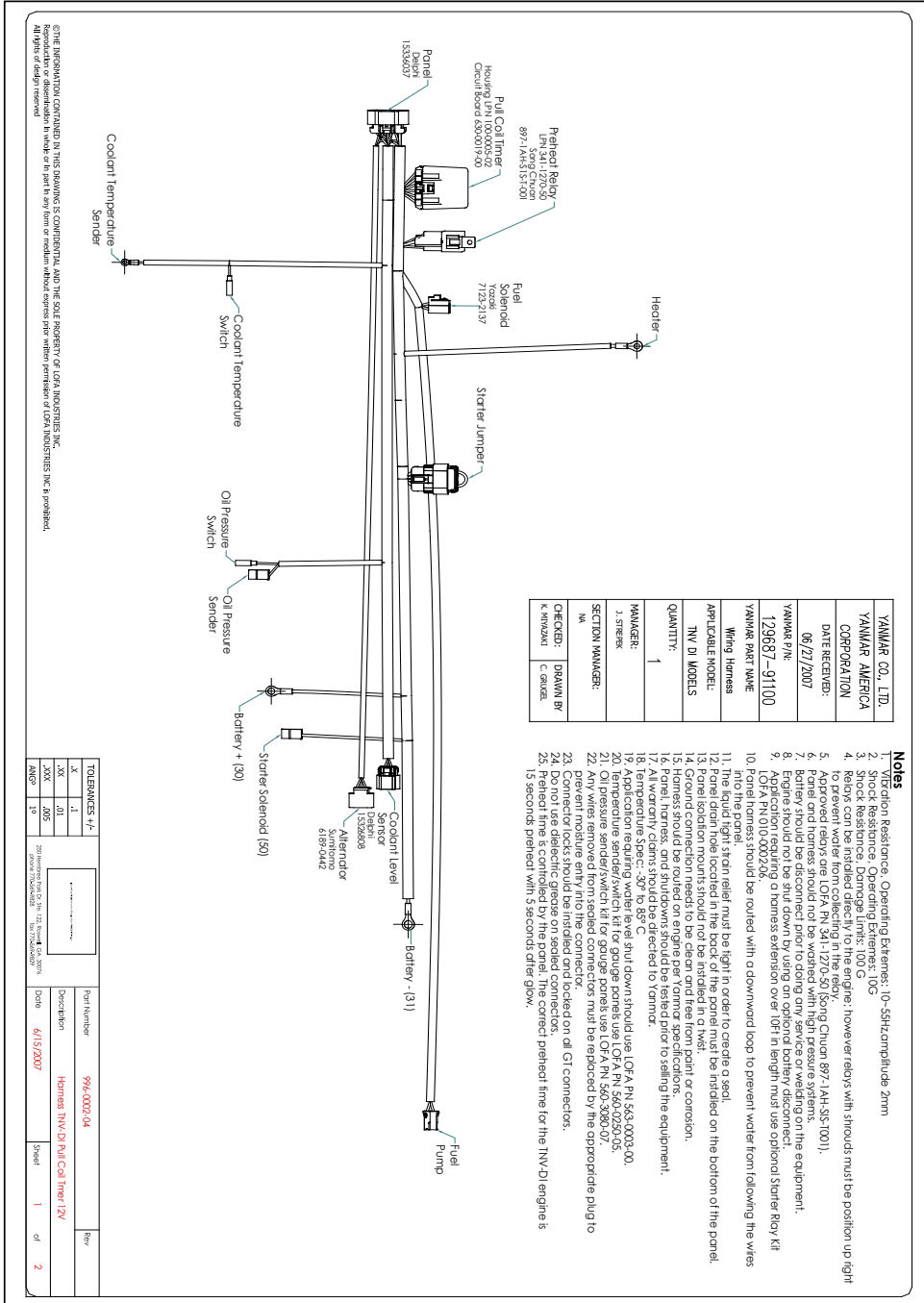
Refer to harness drawing for additional design requirements for consideration of application. A troubleshooting guide is available through Yanmar's Distributor Website or by contacting Yanmar America's Service Department.

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: 129687-91100
YANMAR PART NAME: Wiring Harness
APPLICABLE MODEL: INV DI MODELS
QUANTITY: 1
MANAGER: J. STRECK
SECTION MANAGER: M
CHECKED: DRAWN BY K. KIMIZAKI C. GAUSEL

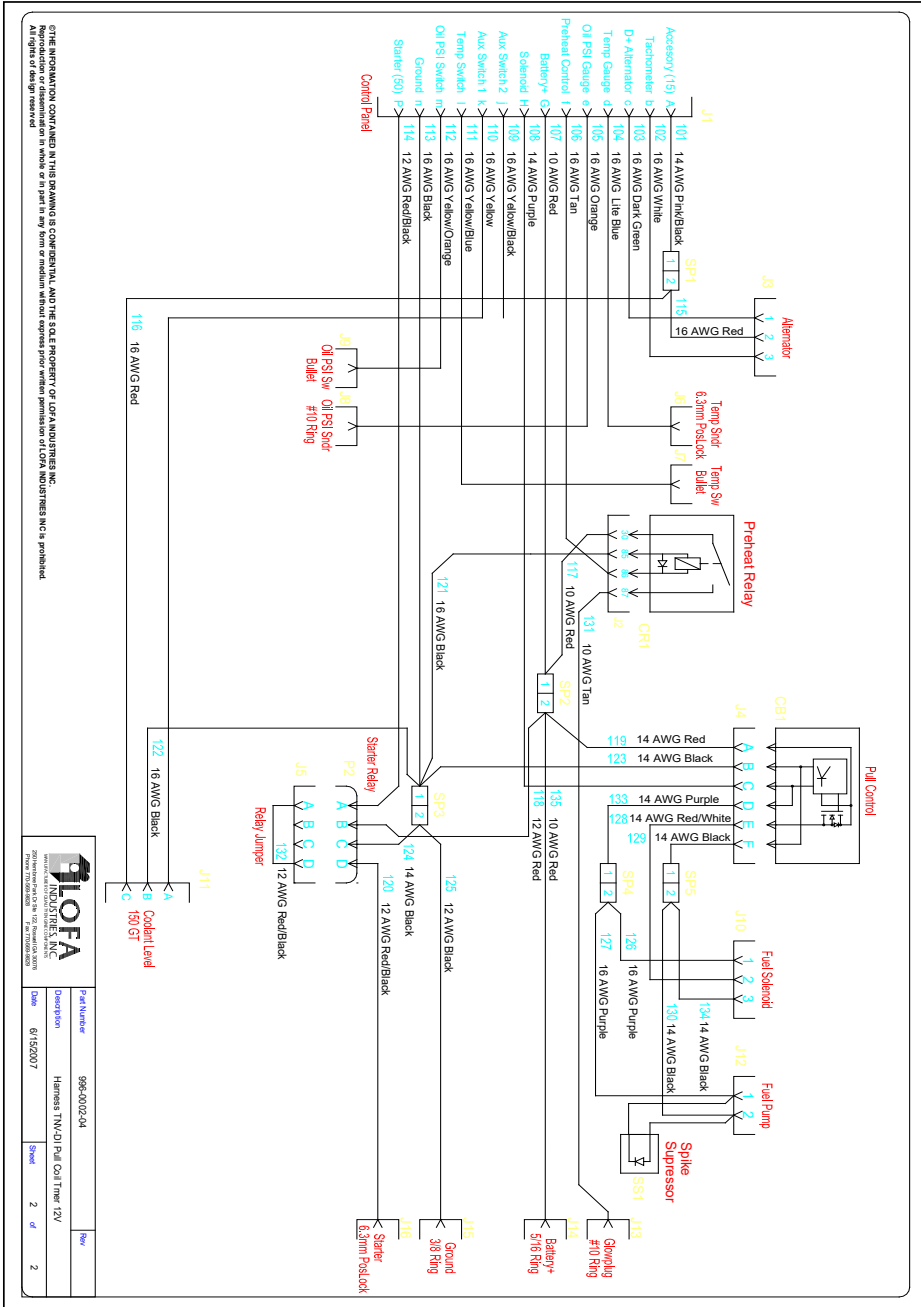
- Notes**
1. Prefireon Resistance, Operating Externes: 10~5Hz/amplitude 2mm
  2. Shock Resistance, Operating Externes: 10G
  3. Shock Resistance, Damage Limits: 100 G
  4. Relays can be installed directly to the engine; however relays with shrouds must be position up right to prevent water from collecting in the relay.
  5. The battery should be installed using Chion 897-144-SIS-1001).
  6. Panel and harness should not be washed with high pressure systems.
  7. Battery should be disconnected prior to doing any service or welding on the equipment.
  8. Engine should not be shut down by using an optional battery disconnect.
  9. Application requiring a harness extension over 10ft in length must use optional Starter Relay Kit
  10. Panel harness should be routed with a downward loop to prevent water from following the wires into the panel.
  11. The liquid tight strain relief must be tight in order to create a seal.
  12. Panel drain hole located in the back of the panel must be installed on the bottom of the panel.
  13. Ground connection needs to be clean and free from paint or corrosion.
  14. Harness should be routed on engine per Yanmar specifications.
  15. Panel, harness, and shrouds should be tested prior to sealing the equipment.
  16. All warranty claims should be directed to Yanmar.
  17. Application requiring water level shut down should use LOFA P/N 563-0003-00.
  18. Application requiring water level shut down should use LOFA P/N 560-0250-05.
  20. Oil pressure sender/switch kit for gauge panels use LOFA P/N 560-3090-07.
  21. Oil pressure sender/switch kit for gauge panels use LOFA P/N 560-3090-07.
  22. Any wires removed from vehicle connectors must be replaced by the appropriate plug to maintain proper electrical connection.
  23. Connector locks should be installed and locked on all GT connectors.
  24. Do not use dielectric grease on sealed connectors.
  25. Retard time is controlled by the panel; the correct preheat time for the INV-DI engine is 15 seconds preheat with 3 seconds after glow.

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TOLERANCES +/-	
X .1	
XX .01	
XXX .005	
AVG 1/8	
Part Number	996-0023-04
Description	Harness INV DI Fuel Cut Timer 12V
Date	6/15/2007
Sheet	1 of 2



## Installation Instructions



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Part Number	Description	Quantity	Unit
396-0102-04	Harness TM-DI Pul Coil Trmr 12V	2	EA
6152007	Shield	2	EA