



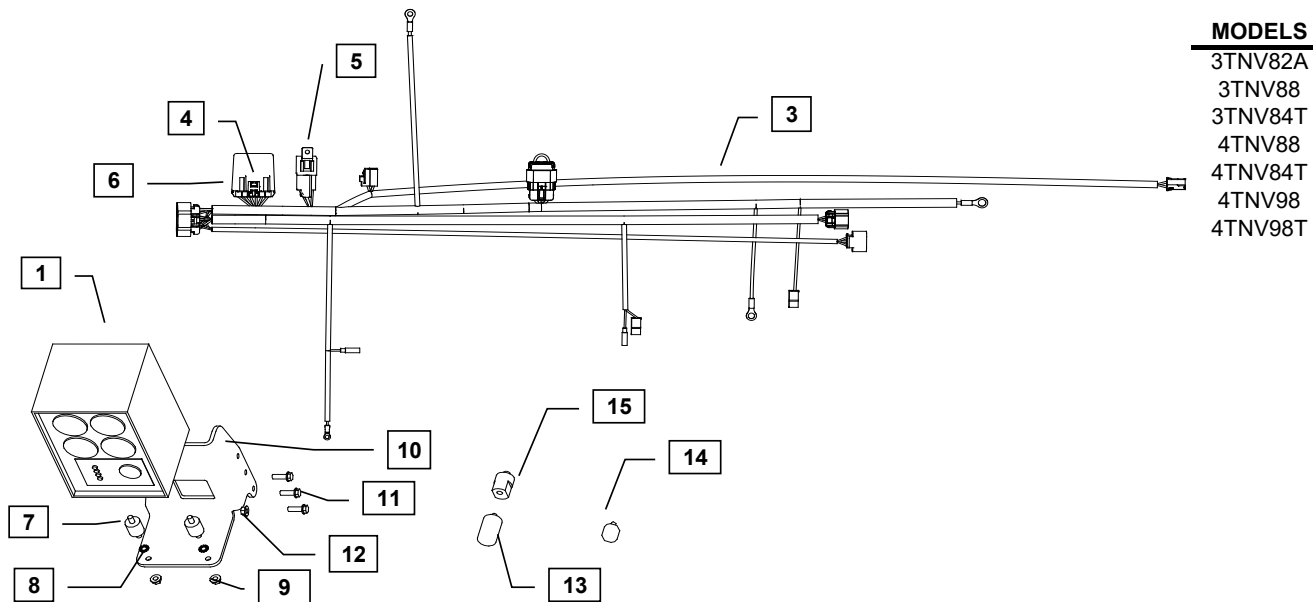
## Supplement to Yanmar Kit Installation Instructions

# SAFETY

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	129689-91210*	Gauge Panel (DI)	1	
3	129687-91100*	Wiring Harness (DI)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	129689-92100*	Isolator Mount M6 x 1.0	3	
8	129689-91180	Washer, M6 (star)	3 (A)	
9	26366-060002*	Nut, M6 x 1.0 (Flange hex head)	3	
10	129689-91230*	Panel Mounting Bracket	1	
11	26106-080252*	Bolt, M8 X 1.25 - 25 (Flanged hex head bolt)	3	
12	26366-080002*	Nut, M8 X 1.25 (Flanged hex head)	3	
13	129689-91260*	Oil Pressure Sender/Switch (bspt)	1	
14	129689-91250*	Water Temperature Sender/Switch (M16)	1	
15	171375-39601*	Damper 1/8 BSPT - 1/8 BSPT	1	



**MODELS**

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

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 (10) using Isolators (7), Star Washers (8) and Lock Nuts (9). 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 (10) assembly to injection pump side rear engine leg using M8 x 25 bolts (11) and M8 Flange Nuts (12).
3. Replace the standard oil pressure switch on the engine with the provided Oil Pressure Sender (13), Damper (15) and Plug. Use thread tape on installation of components.
4. Replace the standard coolant temperature switch on the engine with the provided Water Temperature Sender (14). Use thread tape on installation of components.
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 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.**

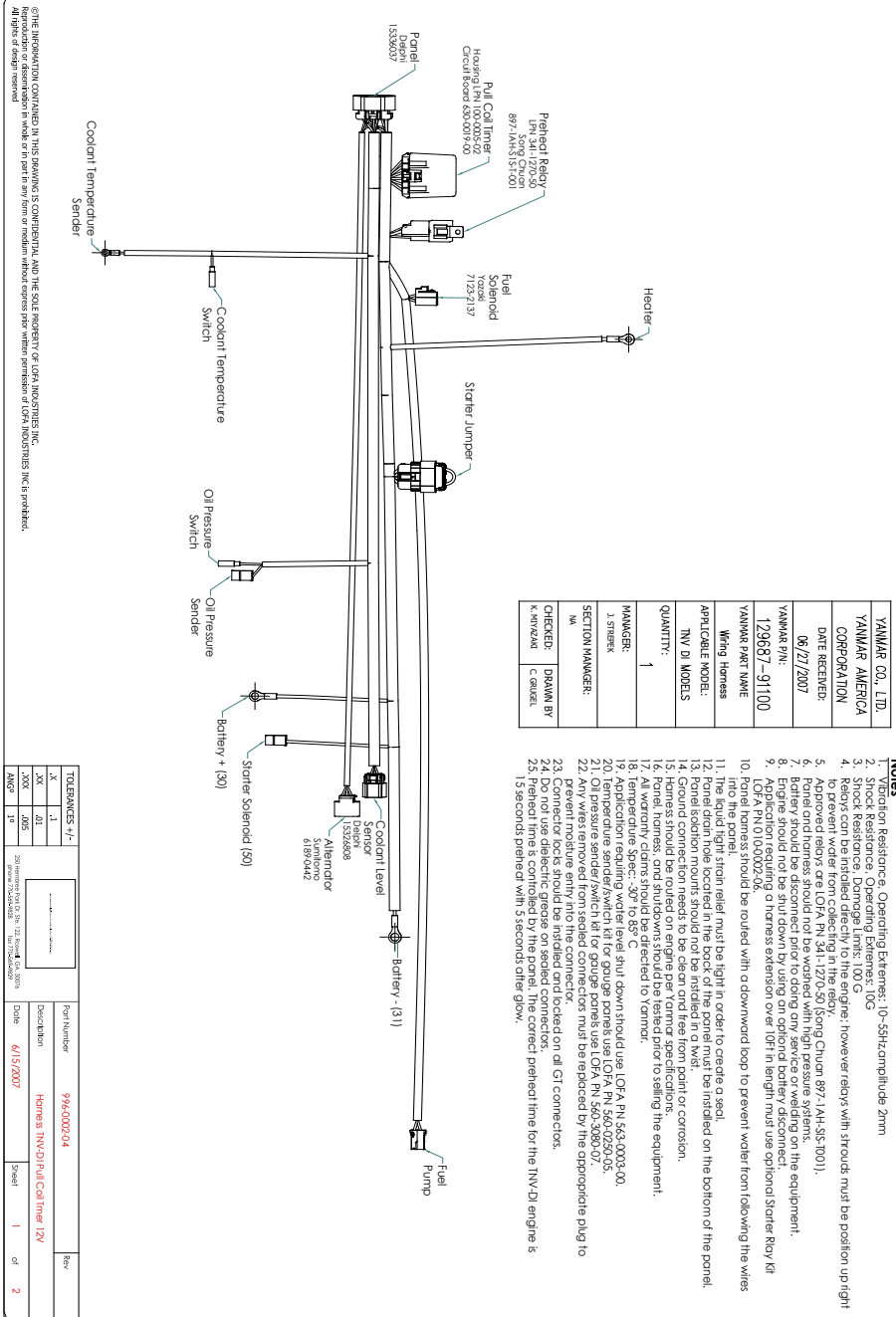
Refer to harness drawing for additional design requirements for consideration of application. A troubleshooting guide is available through Yanmar's Distributor Website or by contacting Yanmar America's Service Department.

Table 1: Comply with torque standards in the table to avoid unexpected damage during installation or in the future.

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: NTV DI MODELS
QUANTITY: 1
MANAGER: J. STREIBER
SECTION MANAGER: M.
CHECKED: DRAWN BY K. KINZAKI C. GAUZEL

### Notes

1. Voltage Resistance, Operating Externals: 10~55Hz, amplitude 2mm
2. Shock Resistance, Operating Externals: 10G
3. Relays can be installed directly to the engine; however relays with studs must be positioned up right to prevent water from collecting in the relay.
4. Approved relays are LOFA PN 341-1270-50 (Song Chuan 897-1AH-3(S1-100)).
5. Battery and alternator should not be connected to the engine's main pressure system.
6. Battery and alternator should be disconnected on the engine's main pressure system.
7. Engine should not be shut down by using an optional battery disconnect.
8. Application requiring a harness extension over 10ft in length must use optional Starter Relay Kit (LOFA PN 01002020).
9. OPA PN 01002020.
10. All wires 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. Control cables should not be routed in a wet point or corrosion.
14. Control cables should be secured to the engine.
15. Horns should be routed on engine per Yanmar specifications.
16. Fuel, horn, and shutdowns should be tested prior to selling the equipment.
17. All warranty claims should be directed to Yanmar.
18. Application requiring water level shut down should use LOFA PN 563-0003-00.
19. Application requiring water level shut down should use LOFA PN 560-0250-05.
20. Temperature sender/switch kit for gauge panels use LOFA PN 560-0250-05.
21. Oil pressure sender/switch kit for gauge panels use LOFA PN 560-3090-07.
22. Any wires removed from sealed connectors must be replaced by the appropriate plug to prevent water from entering the connector.
23. Connector locks should be installed and to be tied on all GI connectors.
24. Do not use dielectric grease on sealed connectors.
25. Preheat time is controlled by the panel. The correct preheat time for the NTV-DI engine is 15 seconds preheat with 3 seconds after glow.

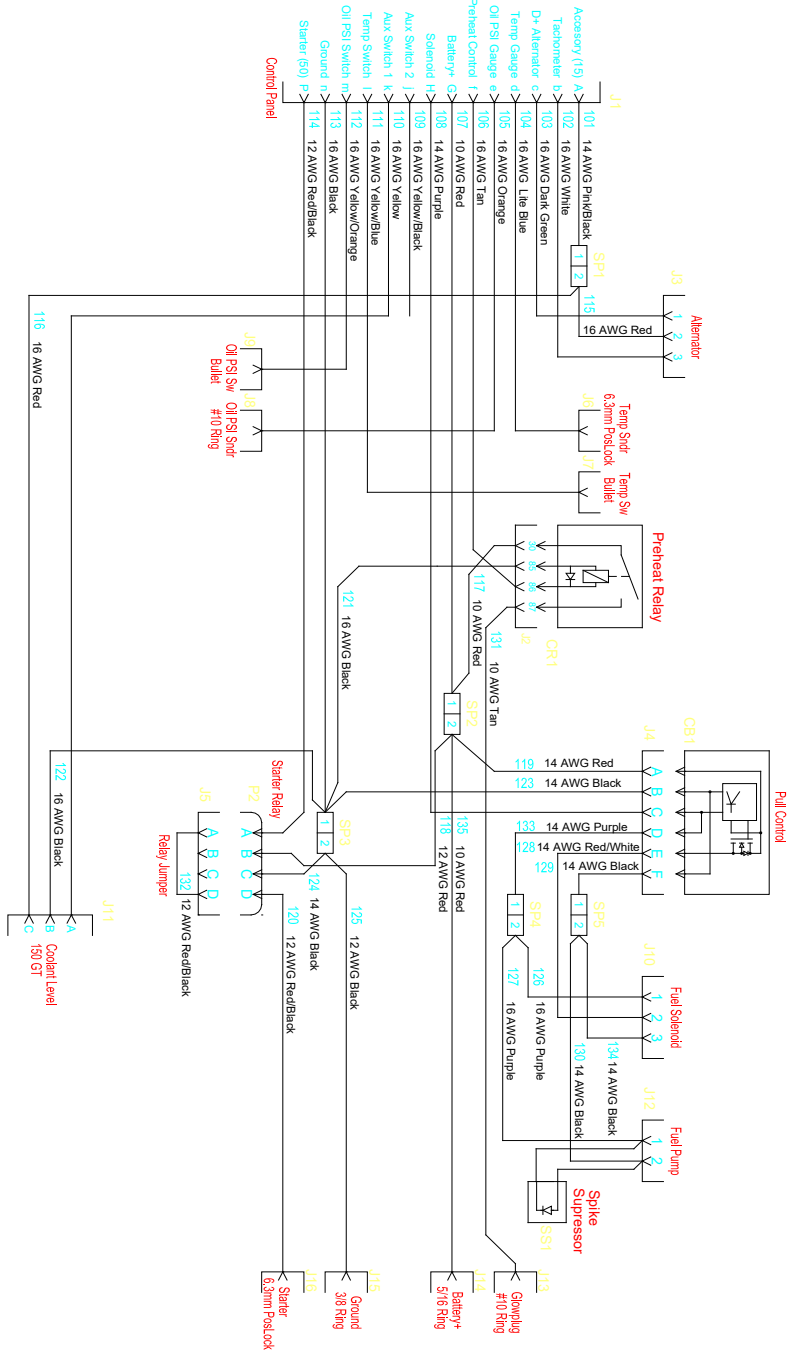
TOLERANCES +/-		Part Number	Rev
X	.1	9946-0002-04	
XX	.01		
XXX	.005	Description	Horness NTV-DI Fuel Cool Timer /ZY
ASST	1"	Date	6/15/2007
		Sheet	1 of 2

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<b>LOVA INDUSTRIES, INC.</b>	
Part Number	995-0102-04
Description	Harness, TNYC01 Pull-Cat Trans, TXV
Date	06/15/2007
Sheet	2 of 2