



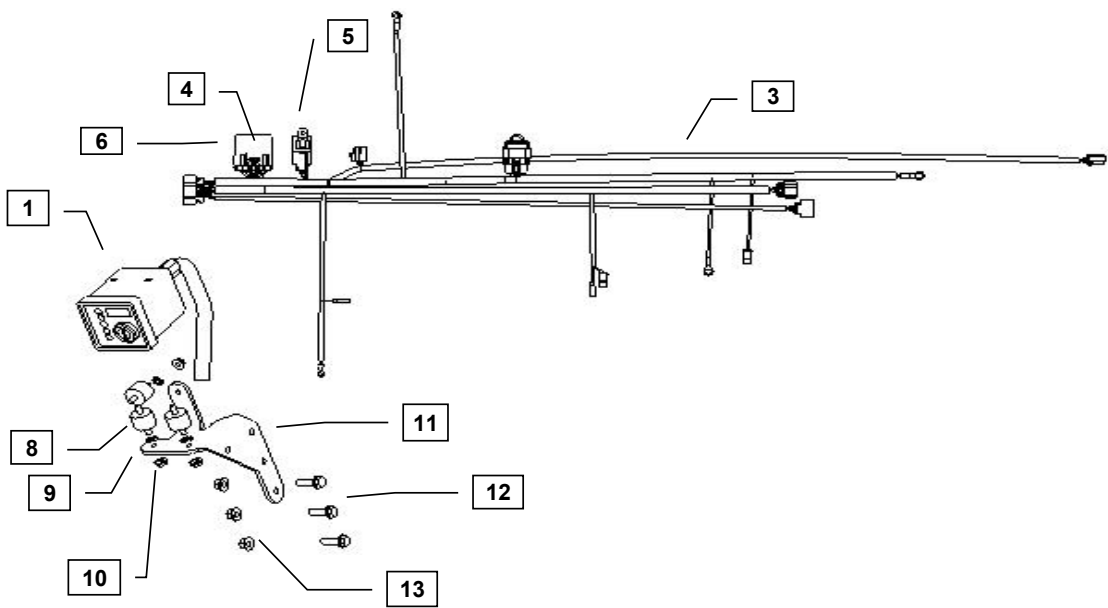
Supplement to Yanmar Kit Installation Instructions

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	119749-91111*	Control Panel (IDI)	1	
2	119749-91050*	Ignition Key, Engine Control Panel	2	
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.

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

Panel 13334072

Pull Coil Timer
Heating JN 100-0005-02
Circuit Board PN 850-0079-00

Preheat Relay
LPN341-1270-50
Sung Chuan
897-146315-9301

Fuel Solenoid
Y2036
7123-2157

Header
7123-3010

Starter Jumper

Battery + (-)

Alternator
Symptoms
6189-0442

Oil Pressure Sender

Coolant Level Sensor
L20386

Battery - (-)

Fuel Pump
Y2020-21

Dimensions: 1.5, 1.9, 11.4, 24.6, 24.2, 0.0, 0.2, 1.1, 1.1, 0.0, 8.0, 0.8, 0.1, 5.1, 5.1, 2.3

Labels: Coolant Temperature Switch, Oil Pressure Switch, Coolant Temperature Sender, Oil Pressure Sender, Coolant Level, Fuel Pump

YANMAR CO., LTD.
YANMAR AMERICA CORPORATION
DATE RECEIVED: 06/27/2007
YANMAR P/N: 119749-91100
YANMAR PART NAME: Wiring Harness
APPLICABLE MODELS: TNV, DI, M06LS
QUANTITY: 1
MANAGER: J. SHERK
CHECKED: DAWAN BY K. MIYAZAKI

Notes

1. Vibration Resistance, Operating Extremes: 10~50Hz amplitude 2mm
2. Shock Resistance, Operating Extremes: 10G
3. 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.
4. Approved relays are LOFA PN 341-1270-50 (Sung Chuan 897-146315-9301).
5. Panel and harness should not be washed with high pressure systems.
6. Engine should not be shut down by using on optional battery disconnect.
7. Application requiring a harness extension over 10ft in length must use optional Starter Relay Kit LOFA PN 010002-06.
8. Panel harness should be routed with a downward loop to prevent water from following the wires.
9. The panel liquid tight strain relief must be tight in order to create a liquid tight seal.
10. Panel drain hole located in the back of the panel must be installed on the bottom of the panel.
11. Panel isolation mounts should not be installed in a twist.
12. Panel, harness, and shrouds should be tested prior to sealing the equipment.
13. All warranty claims should be directed to Yanmar.
14. Temperature spec: -30° to 85° C
15. Temperature requiring water tight for gage panels use LOFA PN 560-0030-00.
16. Temperature requiring water tight for gage panels use LOFA PN 560-0030-05.
17. Oil pressure sender/switch kit for gage panels use LOFA PN 560-3090-07.
18. Any wires removed from sealed connectors must be replaced by the appropriate plug to prevent moisture entry into the connector.
19. Connect the cables should be replaced and checked on all GI connectors.
20. Connect the cables should be replaced and checked on all GI connectors.
21. Preheat time is controlled by the panel, the correct preheat time for the TNV, DI engine is 3 seconds preheat with 0 seconds after glow.

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Part Number	996-002036	Rev	
Description	Harness TNV,DI Pull Coil Timer 12V	Sheet	1 of 2
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Order	61157007	Sheet	1 of 2



Installation Instructions

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LOVA INDUSTRIES, INC. 2000 Highway 130, Suite 112, Memphis, TN 38117 901-521-1000	Part Number: 996-0002-08	Rev: 2
Date: 07/15/2007	Description: Hercules TNV-40 Pull Coil Timer 12V	Sheet: 2 of 2

