

# 89400146 ENGINE CONTROL INSTALLATION KIT

## LEWMAR®

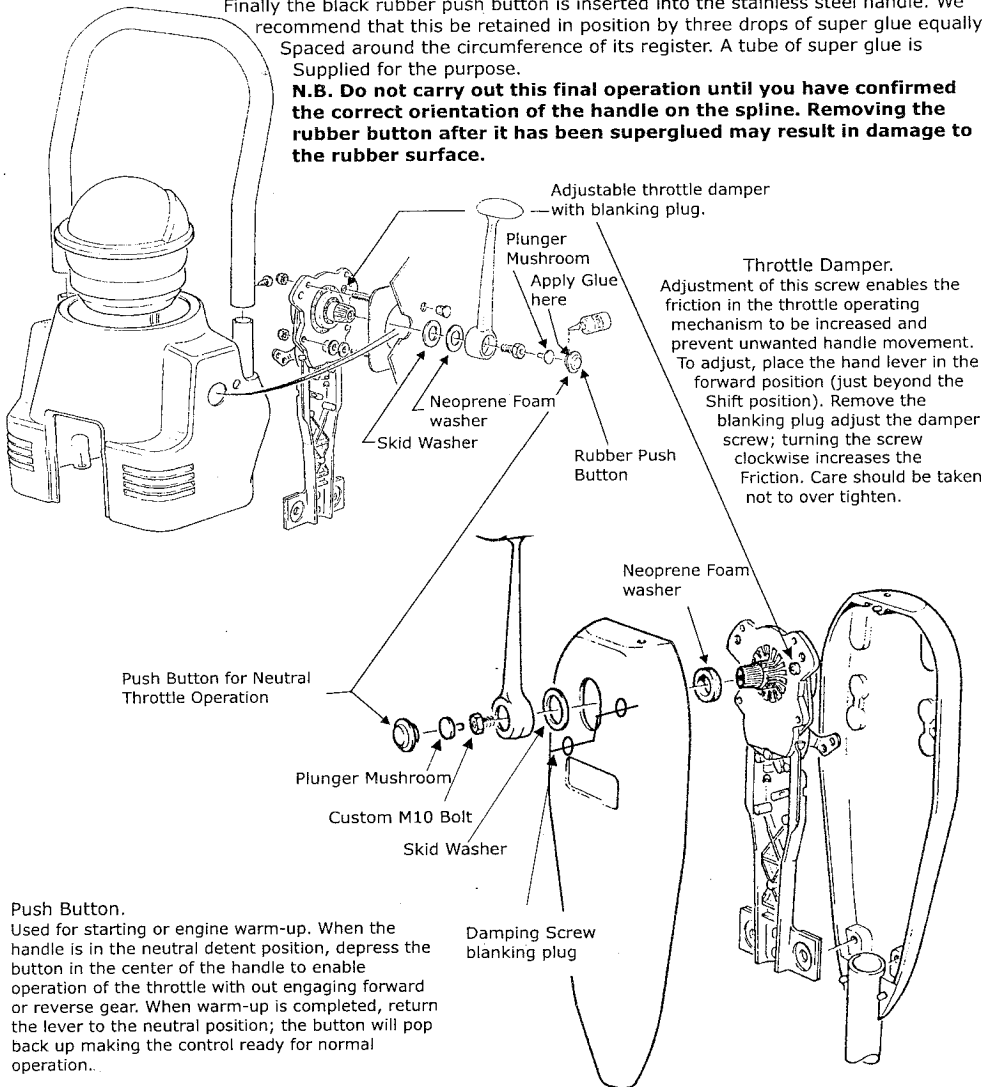
### LEWMAR NON-MAGNETIC SINGLE LEVER ENGINE CONTROL

#### Installation and operation

The handle fits the tapered spline and is retained by a custom M10 bolt which is pre-drilled to accept the plunger mushroom.

Finally the black rubber push button is inserted into the stainless steel handle. We recommend that this be retained in position by three drops of super glue equally Spaced around the circumference of its register. A tube of super glue is Supplied for the purpose.

**N.B. Do not carry out this final operation until you have confirmed the correct orientation of the handle on the spline. Removing the rubber button after it has been superglued may result in damage to the rubber surface.**



#### Push Button.

Used for starting or engine warm-up. When the handle is in the neutral detent position, depress the button in the center of the handle to enable operation of the throttle with out engaging forward or reverse gear. When warm-up is completed, return the lever to the neutral position; the button will pop back up making the control ready for normal operation.

# LEWMAR®

## LEWMAR NON-MAGNETIC SINGLE LEVER ENGINE CONTROL

### Cable Installation and Maintenance Instruction Sheet

#### PLEASE NOTE

Use Morse 33C Cables or equivalent..

Refer to Engine Manufacturers handbook for throttle and gear direction and adjustments.

"Push" and "Pull" refer to the direction of the cable motion to shift into Forward or to Open throttle.

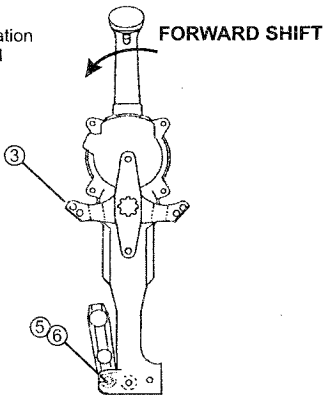
Hole numbers in the diagrams below refer to the numbers stamped on the levers and the control mechanism chassis.

Cables & Wiring should be pre-installed on control before final mounting is made.

#### PULL TO GO FORWARDS

Right-hand operation shown. Left-hand opposite

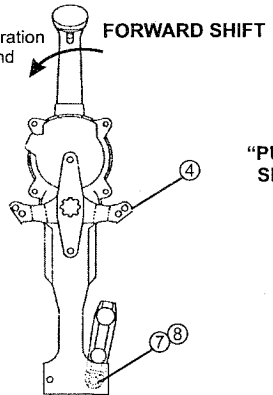
"PULL" SIDE



#### PUSH TO GO FORWARDS

Right-hand operation shown. Left-hand opposite

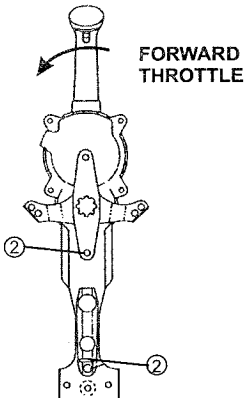
"PUSH" SIDE



#### PULL TO OPEN THROTTLE

Right-hand operation shown. Left-hand opposite

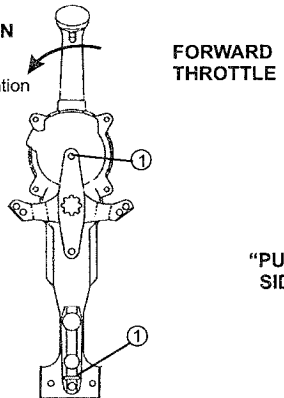
"PULL" SIDE



#### PUSH TO OPEN THROTTLE

Right-hand operation shown. Left-hand opposite

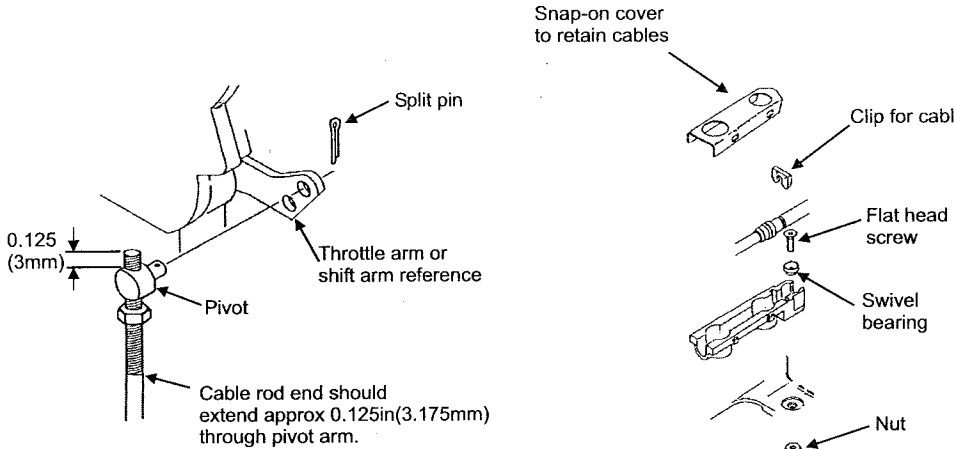
"PUSH" SIDE



# LEWMAR®

## LEWMAR NON-MAGNETIC SINGLE LEVER ENGINE CONTROL

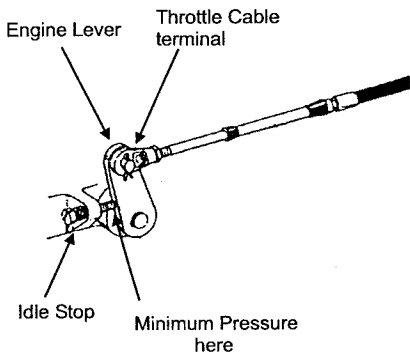
### Cable Terminal and Cable Hub Connections to Control



### Throttle Cable Connection - Engine End

#### CAUTION:

The throttle cable must be disconnected from the motor before making motor idle adjustments. Adjustment of the motor idle while the throttle cable is still connected to the motor may cause a jamming action against the idle stop. As a result the control may not function properly and damage to the control, the cable and/or motor could result.



- Make sure the control is in Neutral Detent.
- The fuel lever should rest lightly against the Idle stop.
- Connect the throttle Cable to the fuel lever.

**NOTE** ~ Throttle cable must be free when fuel lever is in the idle position to prevent hard shifting

# LEWMAR®

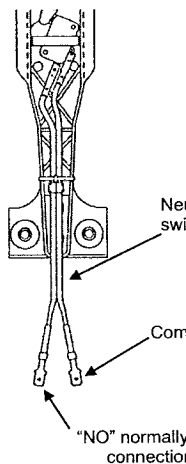
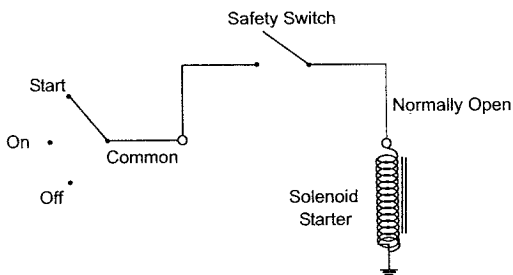
## LEWMAR NON-MAGNETIC SINGLE LEVER ENGINE CONTROL Electrical Connections Neutral Safety Switch

The control is provided with a Neutral Safety Switch. This switch is used to prevent the engine starting in gear. Use a battery-powered Test light or test meter to check continuity.

1. With the control in NEUTRAL connect one wire of the tester to the common terminal, and the "NO" (Normally open) Terminal. The test light MUST Light.
2. Connect the Neutral Safety Switch between the Ignition switch (start Lead) and the starter (See diagram below).

### CAUTION:

Check to make sure that there is electrical continuity only when the control is in gear. There must be any electrical continuity otherwise.



### Maintenance

Periodically check head mechanism for loose fasteners and signs of wear of moving parts. Keep moving parts well lubricated with a moisture displacing lubricant such as WD40 or Marine grease.

Periodically check the cables and engine connections for signs of wear and corrosion replace if necessary.

REVISION 3	
CREATED	BY N.SEAMARKS
APPROVED	BY D.WORTHINGTON
DATE	25.06:03