





# INTRODUCTION

7 K D Q N X R U F K R / R Y I R O D W L L F H R Q W U R X O H Z P D H D Q H F R H W U R O D I H D W X  
R Q H \ H D U Z D U U D Q W V D Q Q X P U H Q X M L D W O H V V V W H H O W R L Q V X U I  
I U H H V H U Y L F H

## 7 R R O V 1 H H G H G

To install your controls the following tools are needed:

\* Phillips screwdriver \* 7/16" wrench or socket \* 3/16" Allen wrench

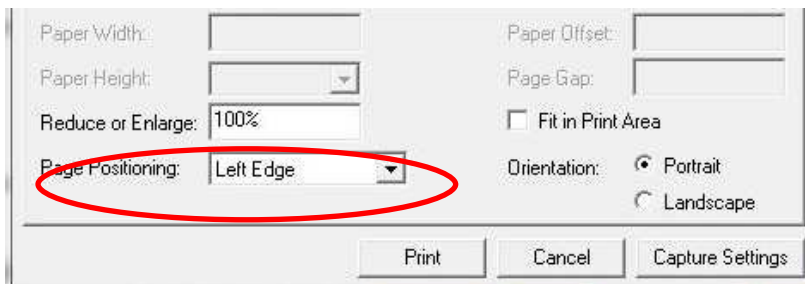
### NOTICE

The included 4 O-rings, and 4 stainless steel wood screws **MUST** be used to install the control or it will void the warranty. Do not over tighten. Its best to use grease in screw holes to prevent breaking chrome finish.

# INSTALLATION

## U in ountin T t

Utilize the template provided on page 5 for appropriate control cut out pattern. When printing the template, make sure your print settings do not resize the document. 3 U L Q W W H P S O D W H V D W

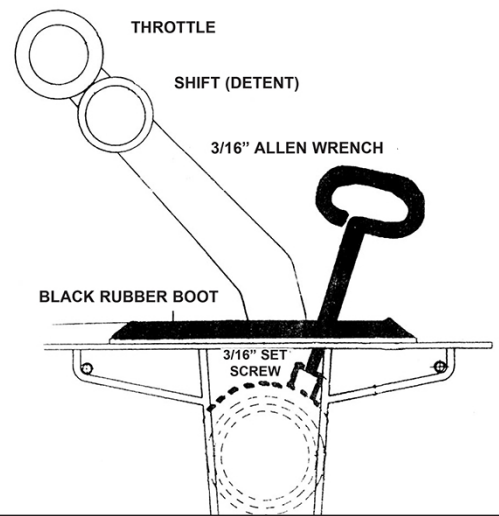


### Adjusting 'etent and )riction:

Adjust detent and friction to desired tension by turning allen screw at base of handle.

Place throttle arm and/or detent in the slightly forward position. Using a 3/16" allen wrench, reach through the black rubber to the 3/16" set screw. Tighten or loosen as needed.

Periodic lubrication of rubber boots in needed. Teflon base lubricant works best.



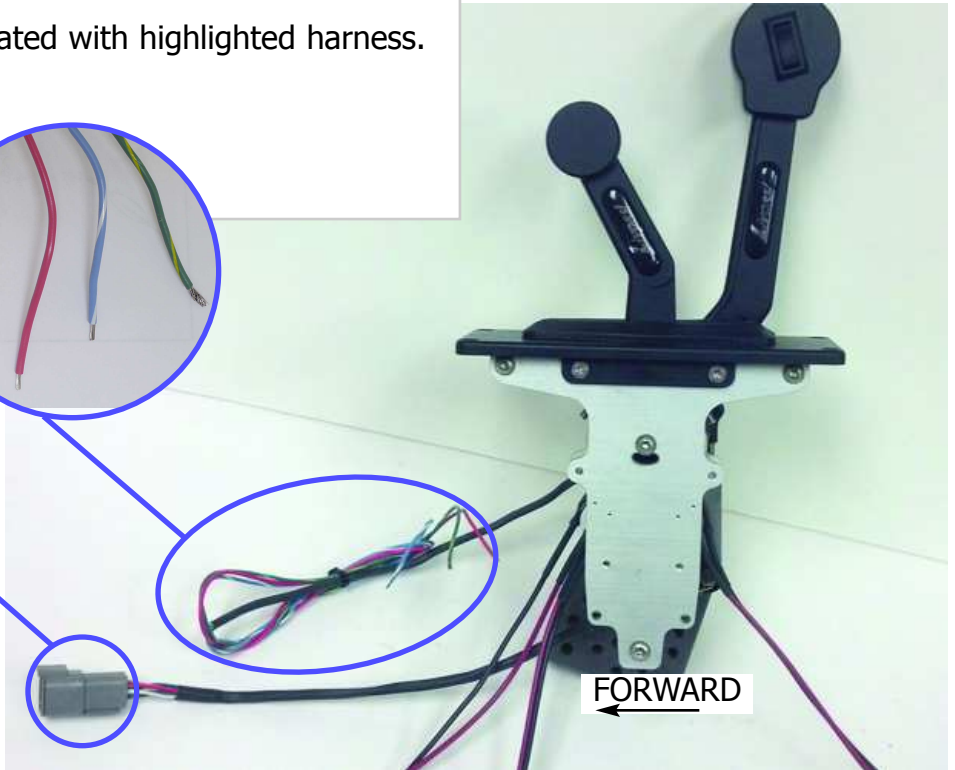
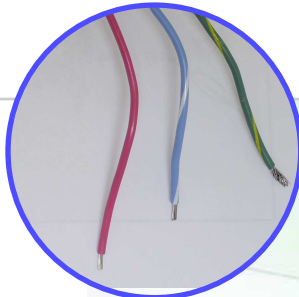
# INSTALLATION - CONT.

## Full Electronic Control

Single Switch function associated with highlighted harness.  
Red = +12 vdc  
Green = Down  
Blue = Up

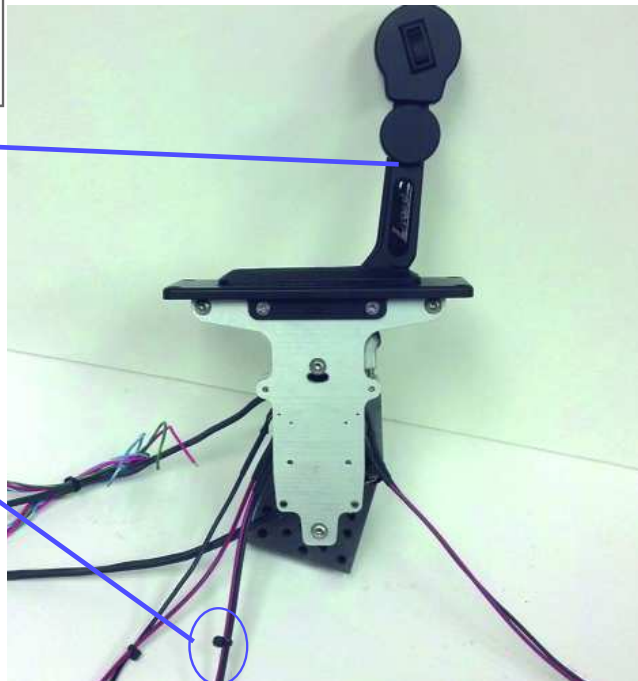


Deutsch plug connects to the engine's controller



Throttle controlled by 0-5 volt potentiometer programmable to customer's specifications. Control will be labeled for forward direction, DO NOT reverse.

Shift lever in reverse position will close highlighted circuit.



# INSTALLATION - CONT.

## Full Electronic Control

Shift lever in Neutral position will close highlighted circuit.



Shift lever in Forward position will close highlighted circuit.

# INSTALLATION - CONT.

## Hybrid (Electric/ Mechanical)

For Livorsi Hybrid Platinum Series controls where either the throttle is electronic and shift is mechanical or vice versa, the use of 33C series cables are needed.

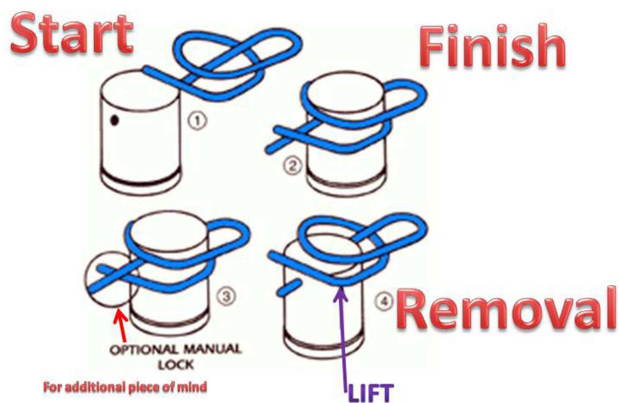
1. When installing new controls it is suggested to use new cables. When removing old cables, attach new cables and route as you remove old cables.
2. After connecting cables to engine and transmission, connect cables to controls using hardware provided. Screw end clevis on cable. Remove plate or brad on side of lever to expose installation point.

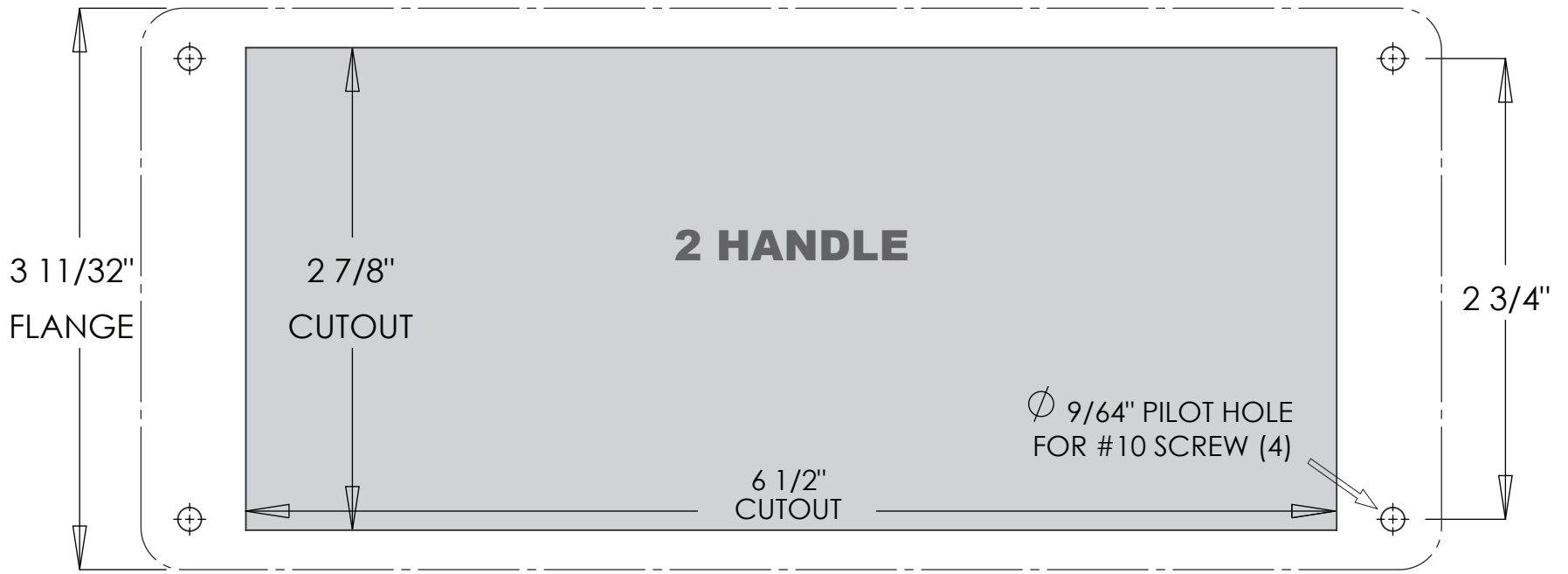
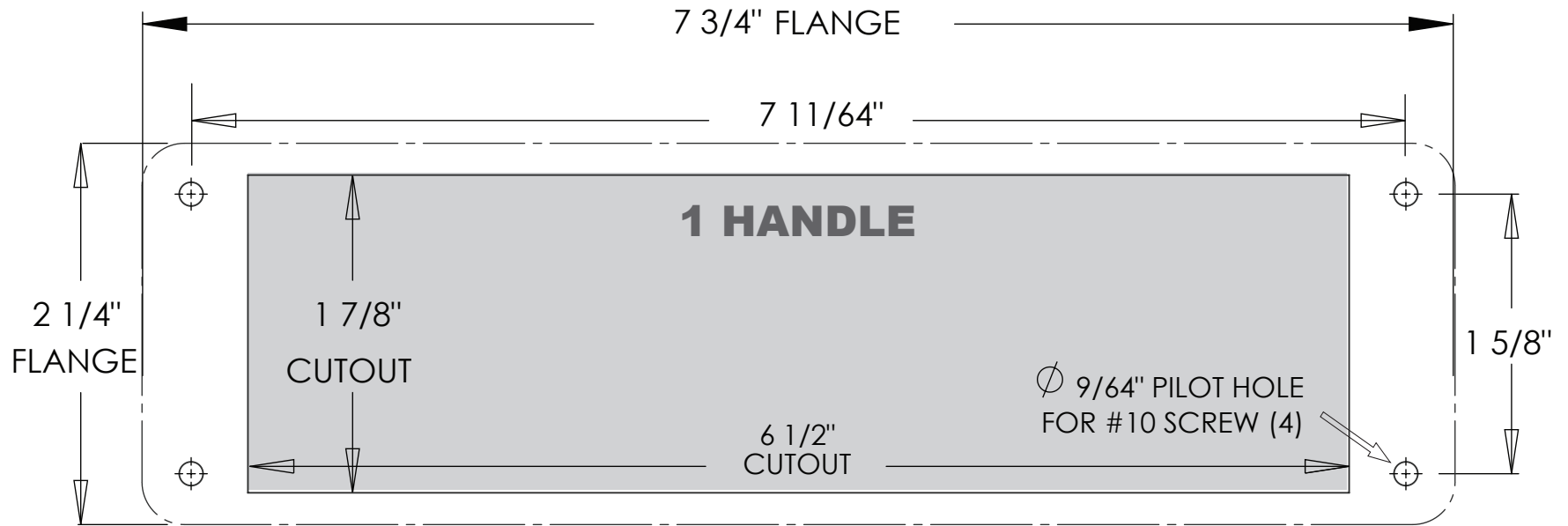
Note:

Two mounting points are provided to adjust different cable throws.

3. Install pin in clevis and insert into desired mounting hole. Reinstall brad to hold pin.
4. Use "U" bracket to secure cable to base of control.
5. Repeat on additional handles before installing control in desired installation location.
6. Control is now ready to be installed in the desired location.
7. Use the included O-rings and stainless steel wood screws to secure the control to surface. These O-rings and stainless steel wood screws **MUST** be used to install the control or it will **void the warranty** on the control. Do not over tighten. Use grease on screws for first time installation.

**WARNING:** Make sure to adjust cables before operating engines.





PCS Control Cutout

Mechanical Units Require 8.5" Clearance Below Top Deck

Electrical Units Require 6.5" Clearance Below Top Deck





