

# Standard Controls

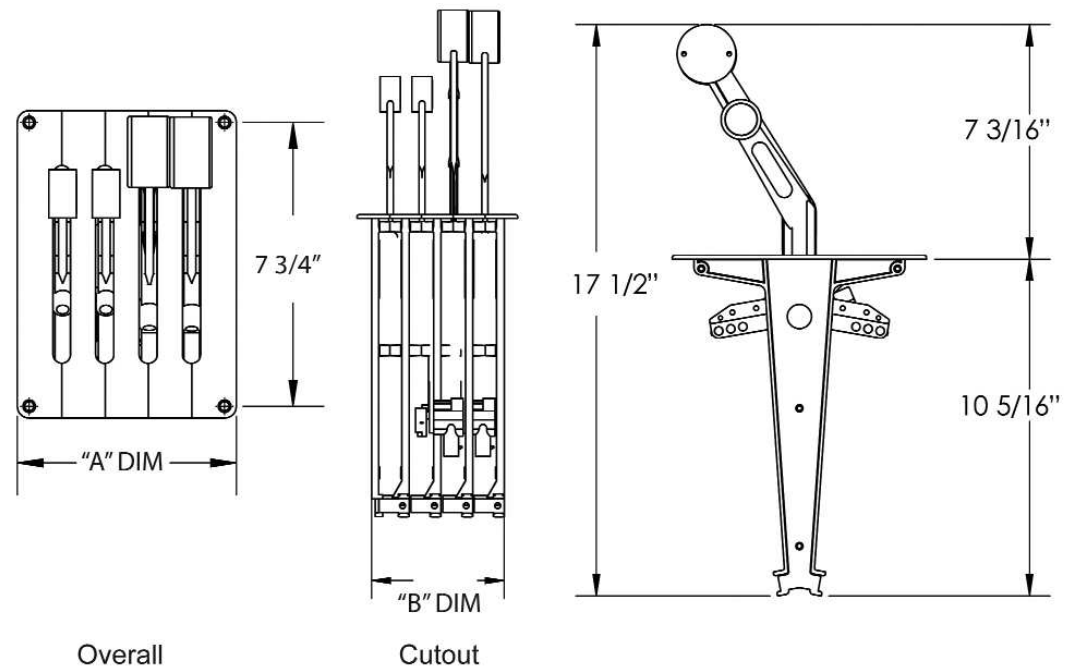
## Mechanical Throttle and Shift

- Built to order
- For single, twin, triple and quad engines
- Split configurations available
- Enclosed wiring in the handles
- Lever resistance is adjustable while still installed in the dash
- Available with bent handles only
- Knobs, handles and base are powder coated one solid color

Dimensions		
Number of Handles	Overall	Cutout
	A DIM	B DIM
2 handle	3 1/4 in. x 7 3/4 in.	2 5/8 in. x 6 1/2 in.
3 handle	4 3/8 in. x 7 3/4 in.	3 3/4 in. x 6 1/2 in.
4 handle	5 5/8 in. x 7 3/4 in.	4 3/4 in. x 6 1/2 in.
6 handle	7 3/4 in. x 7 3/4 in.	7 in. x 6 1/2 in.
8 handle	9 7/8 in. x 7 3/4 in.	9 3/16 in. x 6 1/2 in.

In addition to the part number, please specify when ordering:

- Handle configuration
  - shift- shift- throttle- throttle
- Left or right hand thumb placement
- If ordering bent handles...
  - Cant forward
    - handles bend towards front of the boat
  - Cant backward
    - handles bend towards the back of the boat



Look for our new design coming soon!

# Standard Controls

## Mechanical Throttle and Shift

### Bent Handle Part Numbers

Number of Handles	No Switch	Single Switch	Dual Switch
1 handle	TH1 + color	TH1S + color	TH1D + color
2 handle	TH11 + color	TH11S + color	TH11D + color
3 handle	TH111 + color	TH111S + color	TH111D + color
4 handle	TH22 + color	TH22S + color	TH22D + color
6 handle	TH33 + color	TH33S+ color	TH33D + color

### Colors:



TH11BK

TH22W



TH22SBK



TH22SCH



# Billet Controls

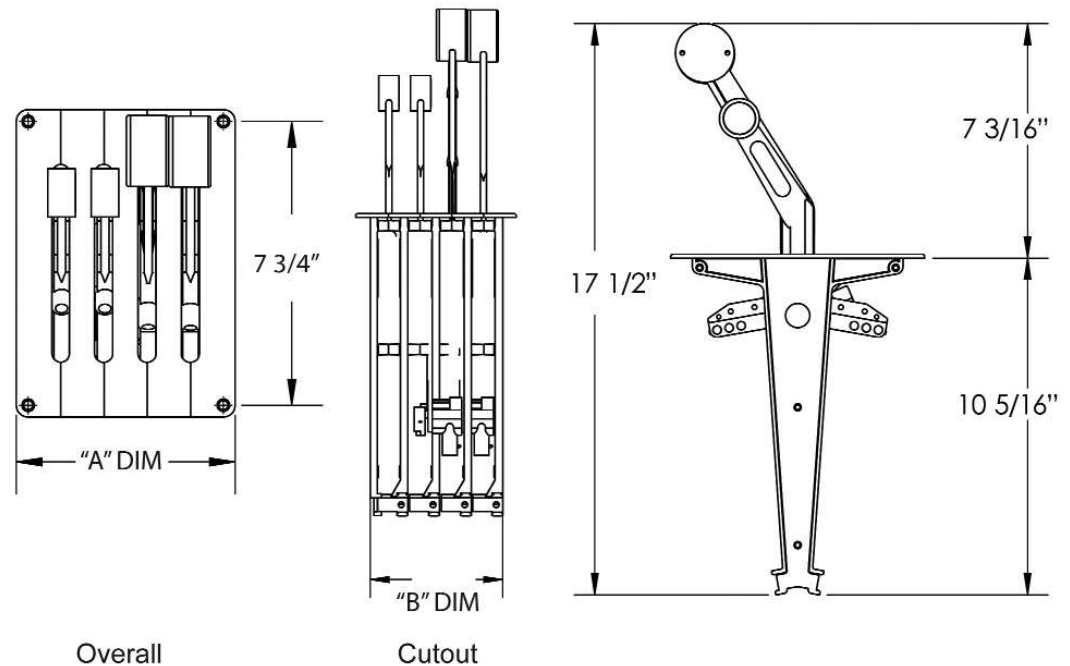
## Mechanical Throttle and Shift

- Built to order
- For single, twin, triple and quad engines
- Split configurations available
- Enclosed wiring in the handles
- Lever resistance is adjustable while still installed in the dash
- Available with bent handles
- Handles and base have a chrome finish
- Base can be powder coated for an extra charge
- Knobs available in color of your choice

Dimensions		
Number of Handles	Overall	Cutout
	A DIM	B DIM
2 handle	3 1/4 in. x 7 3/4 in.	2 5/8 in. x 6 1/2 in.
3 handle	4 3/8 in. x 7 3/4 in.	3 3/4 in. x 6 1/2 in.
4 handle	5 5/8 in. x 7 3/4 in.	4 3/4 in. x 6 1/2 in.
6 handle	7 3/4 in. x 7 3/4 in.	7 in. x 6 1/2 in.
8 handle	9 7/8 in. x 7 3/4 in.	9 3/16 in. x 6 1/2 in.

In addition to the part number, please specify when ordering:

- Handle configuration
  - shift- shift- throttle- throttle
- Left or right hand thumb placement
- If ordering bent handles...
  - Cant forward
    - handles bend towards front of the boat
  - Cant backward
    - handles bend towards the back of the boat



## Bent Handle Part Numbers

Number of Handles	No Switch	Single Switch	Dual Switch
1 handle	THBRB1 + color	THBRB1S + color	THBRB1D + color
2 handle	THBRB11 + color	THBRB11S + color	THBRB11D + color
3 handle	THBRB111 + color	THBRB111S + color	THBRB111D + color
4 handle	THBRB22 + color	THBRB22S + color	THBRB22D + color
6 handle	THBRB33 + color	THBRB33S+ color	THBRB33D + color

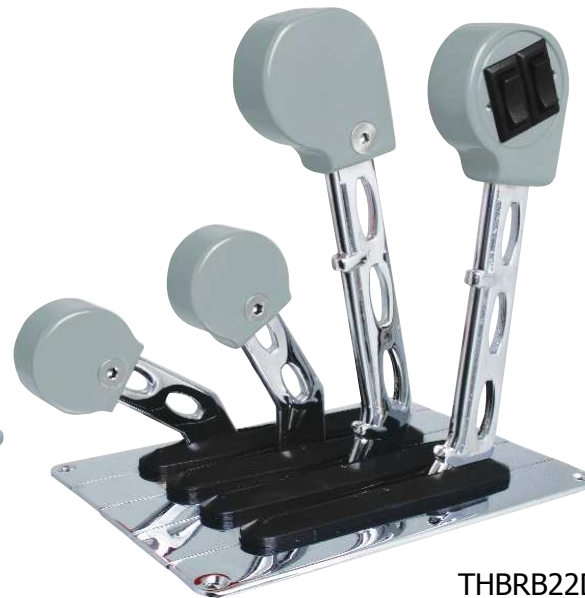
Colors:



THBRB22SR



THBRB22DBK



THBRB22DPL

# Arched Controls

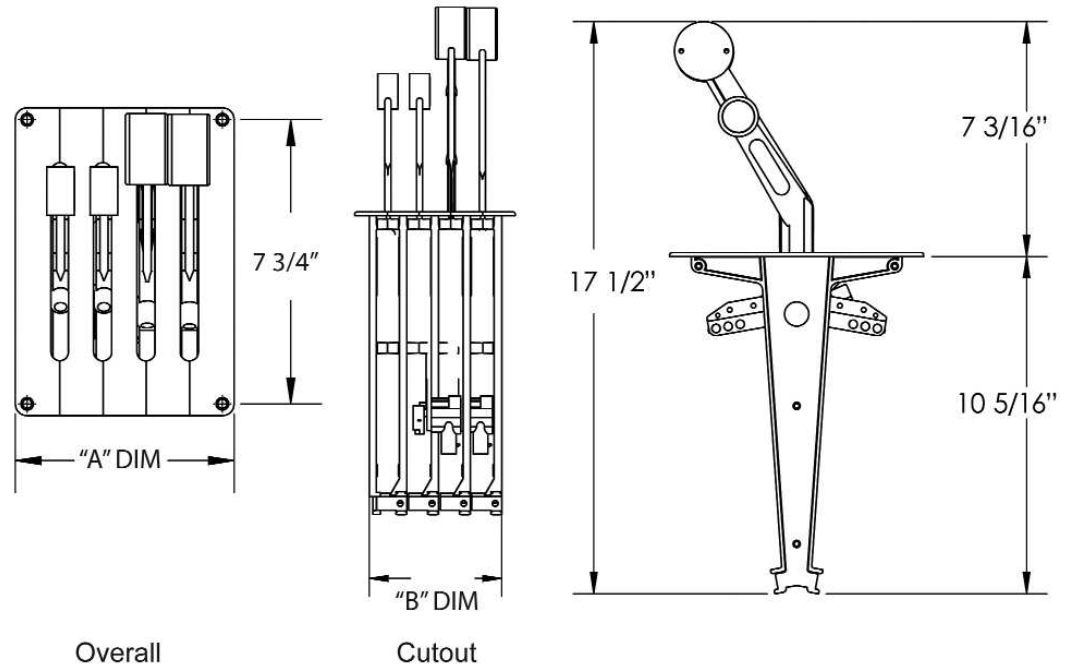
## Mechanical

- Ergonomic handle rests comfortably in the palm of your hand
- Constructed of heavy duty aluminum, bronze and stainless steel
- Choose from water resistant momentary switches or the smaller conventional rocker switches
- Concealed wiring within the handle
- Friction and detent can be adjusted while installed on your helm
- Chrome aluminum handles
- Chrome base is standard
- Optional flat plate base available with a powder coat finish or in carbon fiber

Dimensions		
Number of Handles	Overall	Cutout
	A DIM	B DIM
2 handle	3 1/4 in. x 7 3/4 in.	2 5/8 in. x 6 1/2 in.
3 handle	4 3/8 in. x 7 3/4 in.	3 3/4 in. x 6 1/2 in.
4 handle	5 5/8 in. x 7 3/4 in.	4 3/4 in. x 6 1/2 in.
6 handle	7 3/4 in. x 7 3/4 in.	7 in. x 6 1/2 in.
8 handle	9 7/8 in. x 7 3/4 in.	9 3/16 in. x 6 1/2 in.



THA11PBCH  
with optional ABP2SF plate



# Arched Controls

## Mechanical Throttle and Shift

### Arched Control with Rocker Switch

Number of Handles	No Switch	Single Switch	Dual Switch
1 handle	THA1 + color	THA1S + color	THA1D + color
2 handle	THA11 + color	THA11S + color	THA11D + color
3 handle	THA111 + color	THA111S + color	THA111D + color
4 handle	THA22 + color	THA22S + color	THA22D + color
6 handle	THA33 + color	THA33S+ color	THA33D + color

### Arched Control with 2 Push Buttons

Number of Handles	Part Number
1 handle	THA1PB + color
2 handle	THA11PB + color
3 handle	THA111PB + color
4 handle	THA22PB + color
6 handle	THA33PB + color

### Arched Control with Triple Trim Switch

Number of Handles	Control Part Number
1 handle	THA1T + color
2 handle	THA11T + color
3 handle	THA111T + color
4 handle	THA22T + color
6 handle	THA33T + color

### Optional Flat Plate Base in powder coat or carbon fiber

Number of Handles	Part Number
2 handle	ABP2 + color
4 handle	ABP4 + color

#### Colors:



NEW! Triple Trim Switch



THA11DPL

THA11DPL  
with optional  
ABP2CF plate





# Livorsi SmartCraft® DTS

Digital Throttle & Shift



Shadow Mode Available

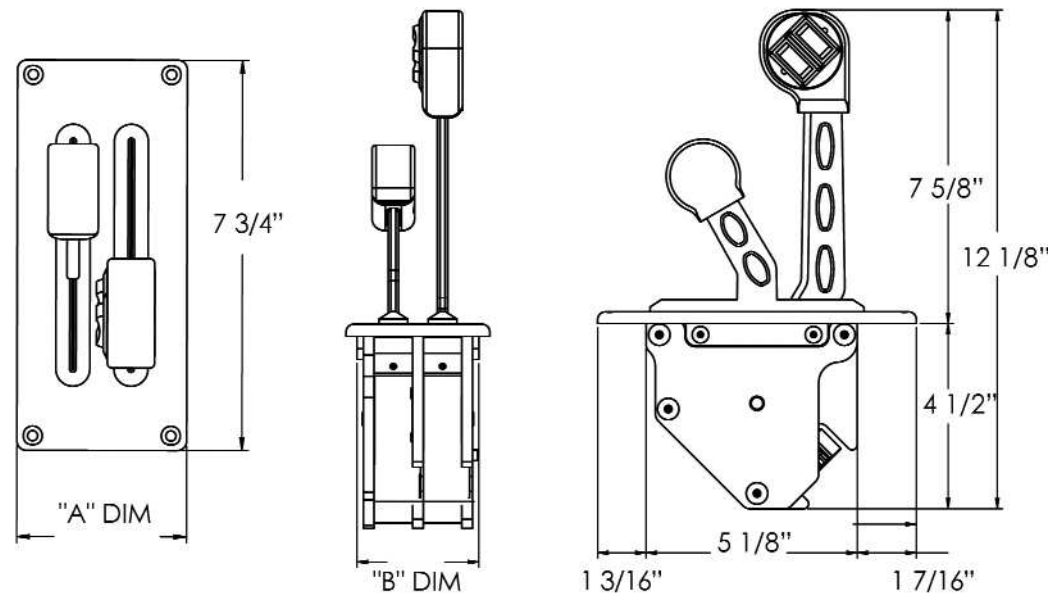
These DTS controls are smaller and lighter: constructed of stainless steel and billet aluminum for years of dependable service. The user has the ability to adjust tension for each handle. The ergonomically designed knobs feature your choice of single or twin drive trim switches or momentary up and down switches.

- A license from Mercury allows Livorsi to combine DTS technology with the options and quality of Livorsi controls
- Designed for direct drive of the triple redundancy position pots
- Eliminates the need for mechanical cables
- Engineered for smooth shifting and throttling
- Single, twin, triple, and quad control configurations are available in a variety of styles and colors.

### Compatible with:

- Mercury DTS equipped engines
- Verado 150 - 350 SCI
- Mercruiser 5.0L - 8.2L
- Optimax 225
- Mercury Racing 565, 1100, 1350
- and Cummins engines that are DTS capable

Dimensions				
Number of Handles	Overall		Cutout	
	A DIM		B DIM	
2 handle	3 3/8 in.	7 3/4 in.	2 7/8 in.	5 1/8 in.
3 handle	4 1/2 in.	7 3/4 in.	4 1/64 in.	5 1/8 in.
4 handle	5 11/16 in.	7 3/4 in.	5 3/16 in.	5 1/8 in.
6 handle	8 in.	7 3/4 in.	7 1/2 in.	5 1/8 in.
8 handle	10 5/16 in.	7 3/4 in.	9 13/16 in.	5 1/8 in.



Overall

Cutout

### Shadow Mode

Shadow mode available for automatic throttle synchronization for triple or quad engine applications; where two throttle levers operate three engines or four engines. Requires appropriate Mercury shadow mode rigging kit.

<b>Chrome Base</b>			
Number of Handles	No Switch	Single Switch	Dual Switch
2 handle	DTSBB11 + color	DTSBB11S + color	DTSBB11D + color
4 handle	DTSBB22 + color	DTSBB22S + color	DTSBB22D + color
6 handle	DTSBB33 + color	DTSBB33S + color	DTSBB33D + color
8 handle	DTSBB44 + color	DTSBB44S + color	DTSBB44D + color
<b>Powder Coat Base</b>			
Number of Handles	No Switch	Single Switch	Dual Switch
2 handle	DTSBB11PC + color	DTSBB11SPC + color	DTSBB11DPC + color
4 handle	DTSBB22PC + color	DTSBB22SPC + color	DTSBB22DPC + color
6 handle	DTSBB33PC + color	DTSBB33SPC + color	DTSBB33DPC + color
8 handle	DTSBB44PC + color	DTSBB44SPC + color	DTSBB44DPC + color
<b>Mercury DTS Rigging Kits</b>			
Single Engine	Twin Engine	Triple Engine	Quad Engine
84-892955K04	84-893378K04	892955K32	Order (4) Single Engine
<b>Mercury Shadow Mode Rigging Kits</b>			
Triple Engine	Quad Engine		
8M8025983	8M8025984		



split throttle/shift configurations available



### Optional Contour Base

For a contour base add the following code after the control part number:

Description	Part Number
chrome contour base	CB
powder coat contour base	CBPC

**Colors:**





# Livorsi ETS

Electronic Throttle - Mechanical Shift

Steyr • Cummins • Iveco • Fiat • Yanmar • Banks • Ilmor • Bosch controllers

Livorsi ETS Controls (Electronic Throttle & Shift) provide smoother shifting and throttling than traditional controls with the use of dual redundancy potentiometers.

The potentiometers used for these electronic controls contain two independent outputs for redundancy. Fully sealed to meet or exceed IP66/IP67 standards, the potentiometer is impervious to moisture and contamination. It also features excellent temperature stability and is constructed of anti-corrosive material.

- Single, twin or triple engine applications
- Utilizes dual redundancy position sensors
- Shifters can remain mechanical with 33C or 43C cables or can be electronic with micro switches forward and aft
- Bucket controls, shifters or throttles can be stacked together or separate

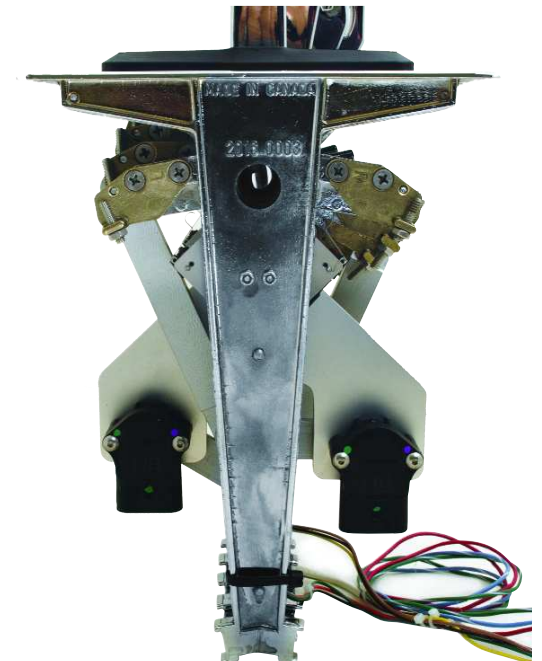
The following components can be added to your controls to “electrify” them to communicate with various engines:

**ETPAS or ETPAT-** (single or twin potentiometers)

- Added to throttles or shifts
- Connectors with flying leads are supplied
- 0-5 volt dual redundancy pots  
(when ordering, specify for shift or throttle lever)

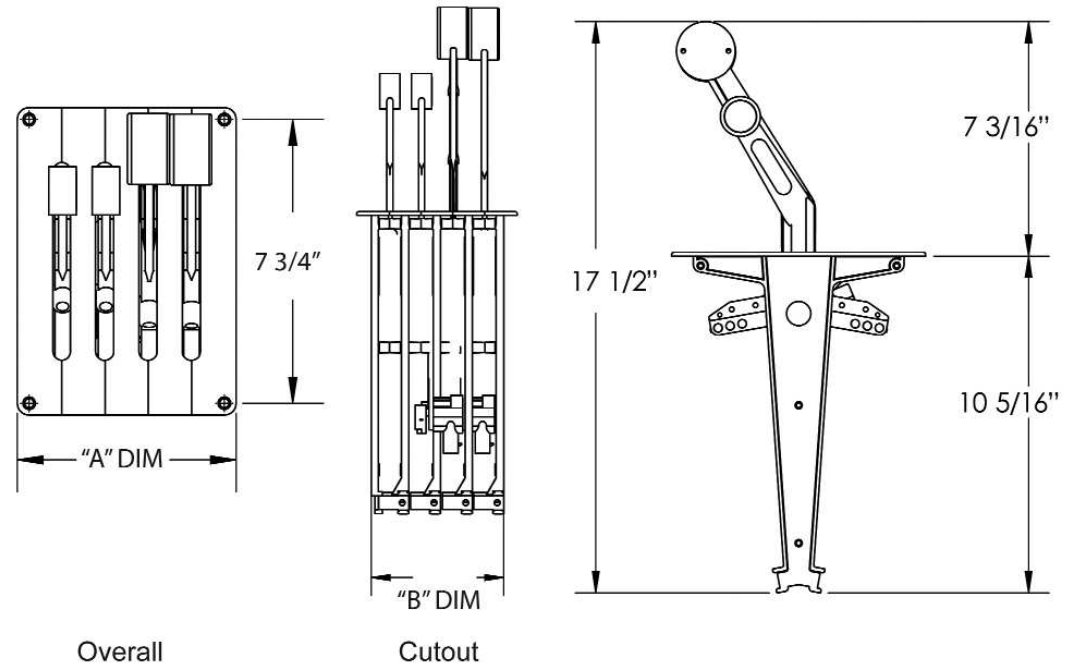
**ESSA**

- Waterproof switches, forward and aft that can activate a solenoid to shift a transmission
- One switch is required for each handle
- Connectors with flying leads are supplied



Let Livorsi Marine, Inc  
create your next  
custom application  
for your specific engine.

Description	Part Number
single engine assembly 0-5V	ETPAS
twin engine assembly 0-5V	ETPAT
triple engine assembly 0-5V	(1) ETPAS, (1) ETPAT
shift assembly switch- 1 required for each handle	ESSA
connector with 18" flying lead 0-5 V pot	ETS5VH
Cummins Harness 20 ft	CMDH20
Cummins Harness 25 ft	CMDH25
Cummins Harness 30 ft	CMDH30
Steyr Harness 20 ft	HSTH20
Idle Validation Switch needed for Steyr application	ETSIVS



ESSA switch



dual redundancy pot

Dimensions		
Number of Handles	Overall	Cutout
	A DIM	B DIM
2 handle	3 1/4 in. x 7 3/4 in.	2 5/8 in. x 6 1/2 in.
3 handle	4 3/8 in. x 7 3/4 in.	3 3/4 in. x 6 1/2 in.
4 handle	5 5/8 in. x 7 3/4 in.	4 3/4 in. x 6 1/2 in.
6 handle	7 3/4 in. x 7 3/4 in.	7 in. x 6 1/2 in.
8 handle	9 7/8 in. x 7 3/4 in.	9 3/16 in. x 6 1/2 in.

**Colors:**



# Electronic Sidemount Controls - Livorsi Design Capabilities

The electronic controls shown below are designed for specific OEM builders and cannot be sold at the retail level. We show these products here to highlight our design capabilities.

If you are an OEM and you do not see the product you require on our web page or in our catalog, or you need a special application parts, please call or email us. We welcome the opportunity of designing a product for you.

## Electric Throttle - Mechanical Shift Control

- Livorsi EMC Controls (Electronic Throttle & Mechanical Shift)
- Uniquely designed for engine applications that utilize electronic throttle control yet require a cable to shift the transmission, drive, or outboard
- Throttle - Features a dual redundancy potentiometer that is fully programmable, allowing you to customize the amount of throttle output throughout the entire range
- Shift - Compatible with 33C or 43C cables

## Livorsi EEC Controls (Electronic Throttle & Shift)

- Fully electronic controls that provide a smoother and safer ride with lightning fast shifting and throttling at your fingertips
- Throttle - Features a dual redundancy potentiometer that is fully programmable, allowing you to customize the amount of throttle output throughout the entire range
- Shift - Military grade switches provide reliable gear position feedback to the engine controller
- Push button for throttle only mode with LED indication

## Both Versions Feature:

- Adjustable friction settings for throttle and shift detent
- Single or twin trim switches available to actuate wake tabs or drives
- Constructed to exceed ABYC standards
- Compatible with PCM, ILMOR and Indmar engines that support electronic throttle and shift control



Livorsi Marine provides customized controls to a number of builders:

Nautique

Centurion



MB Sports



Malibu



Tigé



# Electronic Foot Pedals - Livorsi Design Capabilities

The electronic controls shown below are designed for specific OEM builders and cannot be sold at the retail level. We show these products here to highlight our design capabilities.

If you are an OEM and you do not see the product you require on our web page or in our catalog, or you need a special application parts, please call or email us. We welcome the opportunity of designing a product for you.

- Currently designed to control marine engines that utilize electronic throttle control
- These pedals may be calibrated for MEFI5 and 6 engines
- This completely electronic design eliminates problematic cables from bow to stern
- A sensor is used to send throttle position information from the pedal to the ECU on the engine
- Fully sealed to IP68 specifications, this sensor is waterproof and highly durable
- Plug and play waterproof Deutsch connectors simplify installation
- Solid rugged design, made of billet aluminum with an anodized finish to prevent corrosion
- Aggressive anti-slip features are built right into the pedal for confident non-slip throttling
- Private Labeling available



# Custom Wire Harness Solutions

Livorsi is ready to meet your short to medium run mechanical and electrical cable assembly requirements.

- Engineering design support to help maximize efficiencies
- Electro-mechanical assembly, process development, fabrication and testing
- Semi-automated wire and cable cutting and stripping for quick change-over
- Ultrasonic wire welding
- Semi-automated terminal crimping
- Custom wire labels to identify individual wires; decreases assembly time and errors
- Soldering



Komax BT 722 wire terminal crimper with crimp force technology

Livorsi utilizes state-of-the-art equipment from top manufacturers like Komax, Stapla, Cami and Shimpo.

## Cutter/Stripper

Cuts and strips wire and cable to precise programmed length.

individual wires · multi-conductor cable · wire braid · phone wire · full strip · half strip · partial strip

## Wire Terminal Crimper

A semi-automated machine that provides precise and consistent compression of wire terminals, ensuring accurate in-process crimp height, crimp force and strips. Terminal types include: Molex · AMP · Deutsch · Hirose · Others

## Ultrasonic Wire Welder

Helps reduce design time and component costs by integrating 100% quality monitored ultrasonic splice welded wires into your wire and cable harnesses. High electrical integrity with strong metallurgical bonds ensures a reliable connection between various gauges of wire.

In addition to in-process quality assurance, we perform 100% quality control final testing on all wire harness assemblies.

- Cable Eye Testing
- Pull Force Gauge
- LCD Video Microscope
- Value Added Wire Assembly

We can supply all harnesses needed for your OEM boat applications.



# Mechanical Side Mount Control



Shown here with optional bezel

Single handle-dual function control operates both throttle and shift. Suitable for any type of boat with outboards, inboards, I/Os or jet boats.

- In-handle trim switch for drives and diverters
- Can be installed on either port or starboard side, with a vertical or horizontal cable entry
- Contains a positive lock-in neutral to prevent accidental gear engagement
- Accepts 33C type cables as well as Mercury, Yamaha, Evinrude and others
- Includes a cable connection kit and neutral safety switch
- Available in all the Livorsi powder coated colors

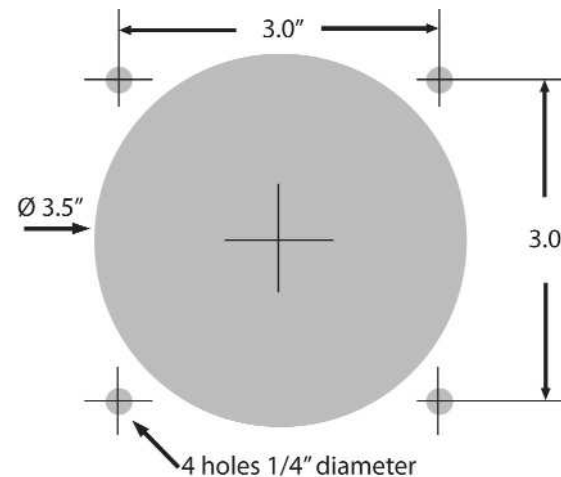
## Control Bezel

- The optional bezel adapts a Mercury 3000 or 4000 side mount shifter cutout to fit this control
- Available in a platinum powder coat finish, other Livorsi colors available at an extra charge

### Colors:



### Cutout -Installation Diagram



Description	Part Number
side mount control with cable connection kit	SMC + color
control bezel platinum	SMCBPL
control bezel in another color	SMCB + color

# Binnacle Mount

Mechanical Throttle & Shift - Dual Function

Available Spring 2013

- Supports outboard and sterndrive configurations using 33c cables
- Add up to 4 trim switches depending on your application
- Throttle only button
- Adjustable friction settings for throttle and shift
- Available in all standard Livorsi colors
- Custom colors available upon request

Number of Switches	1 handle	2 handle
No Switch	BMCM1 + color	BMCM2 + color
Single Switch	BMCM1S + color	BMCM2S + color
Dual Switch	BMCM1D + color	BMCM2D + color
Triple Switch	BMCM1T + color	BMCM2T + color
Quad Switch	BMCM1Q + color	BMCM2Q + color

Colors:



1 handle



2 handle



# Mechanical Sidemount Controls

## Mechanical Sidemount Features

- Now with a shorter throw - 180 degrees
- Supports outboard and sterndrive configurations with 33C cables
- Built in single trim switch controls drives, tabs wake plate, etc.
- Adjustable friction settings for throttle and shift detent
- Pull up collar design prevents accidental reverse or forward engagement
- Center button disengages shift for throttle only mode
- Available in all the standard Livorsi colors
- Custom colors available upon request

Available Spring 2013

Colors:



## Tow Sport Control (Ski Boats)

- Customizable
  - Branding
  - Colors
- Backfittable
  - Replaces Teleflex MV3

## Runabout Control

- Customizable
  - Branding
  - Colors
- Backfittable
  - Replaces Mercury MPC GEN II Panel Mount controls
  - Replaces Teleflex CH2200 + CH2300 controls

# Control Hardware & Accessories

## Trim Switches

- Replacements for Standard, Billet or ETS Controls
- These switches will not work on Mercury controls

Colors:



dual with wires  
and plate



## Triple Trim Switch - bolt on

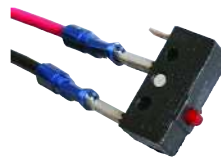
- Trim multiple drives or tabs without taking your hands off the throttle
- Ergonomic design keeps throttling arm relaxed
- Aircraft style bolt-on adds a total of 3 switches
- For left or right handed applications
- Made of billet aluminum
- Fits standard or billet controls

Colors:



## Neutral Safety Switch

- Allows you to start engine only when in neutral
- Included at no charge with your control order
- One needed for each shift



## Diode Kits

- 3 amp
- 1000V



Trim Switches	
single no wires	TSSO
single w/ wires	TSSW
single w/ wires & plate	TSSWP + color
single w/ wire, plate & back plate	TSSWPB + color
dual w/ wires & plate	TSDWP + color
dual w/ wires, plate & back plate	TSDWPB + color
Triple Trim Switch	TTS + color
Neutral Safety Switch	NSS
Diodes	
diode kit- diodes only	
4 piece kit for twin engine	DK
diode plug in harness- twin	DKH2
diode plug in harness- triple	DKH3

# Control Hardware & Accessories

## Flat Plate Base

- Available in:
  - 2 carbon fiber colors or with a powder coat finish
- Fits Arched or Billet controls
- Can only be installed by Livorsi



### Colors:

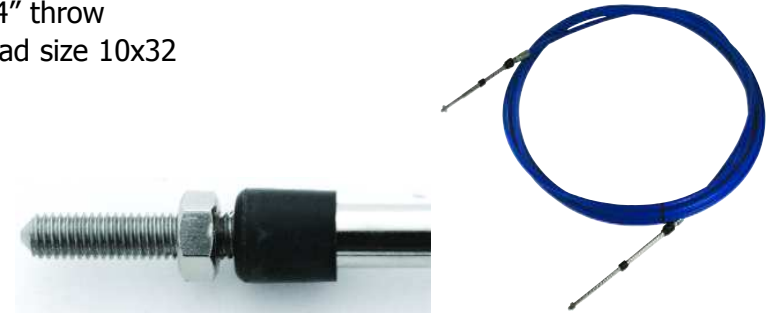


Number of Handles	Part Number
2 handle	ABP2 + color
4 handle	ABP4 + color



## 33C Series Cables

- Sold in two foot increments
- Sizes range from 10 feet to 38 feet
- Use with Livorsi controls or mechanical indicators
- Stainless steel core
- Chrome plated brass
- 3 1/4" throw
- Thread size 10x32



Cable Length	Part Number
cable 10 feet	CA10
cable 12 feet	CA12
cable 14 feet	CA14
cable 16 feet	CA16
cable 18 feet	CA18
cable 20 feet	CA20
cable 22 feet	CA22
cable 24 feet	CA24
cable 26 feet	CA26
cable 28 feet	CA28
cable 30 feet	CA30
cable 32 feet	CA32
cable 34 feet	CA34
cable 36 feet	CA36
cable 38 feet	CA38



# Control Hardware & Accessories

## Cable Adapter Kits

- 1 kit needed for 1 throttle/1 shift lever



CCK30 shown here



CCKOBM



CCKIO



QDBJ

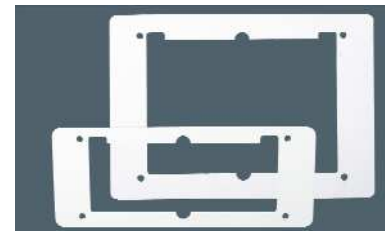


TBC

Description	Part Number
<b>Throttle Adapter Plates</b>	
2 handle adapter	TAP2W
4 handle adapter	TAP4W
<b>Cable Adapter Kits</b>	
Mercury OB 1 shift/1 throttle	CCKOBM
Mercury I/O 1 shift/1 throttle	CCKIO
OMC OB 1 shift/1 throttle	CCKOBO
Cable Connection Kit (included at n/c with control order)	CCK30
Cable Connection Kit for 43C series cables	CCK40
cable connector 90 degree	QDBJ
Throttle bracket clip	TBC

## Throttle Adapter Plate

- Adapts a Mercury control cutout to accept Livorsi controls
- Made of aluminum
- White powder coat finish
- 2 handle measures: 3 1/2" W x 9 1/2" L
- 4 handle measures: 5 3/4" x 9 1/4" L



# Control Hardware & Accessories

## Arched Base Plate

- Accent your throttle with this optional base
- Fade resistant powder coating matches your Livorsi controls
- No exposed screws
- For up to 6 handles
- Fits on all Livorsi controls except: Livorsi DTS
- Private Labeling available

### Colors:



### Arched Base Plate Dimensions

Number of Handles	Overall Dimensions
1 handle	3 1/2" W x 8 13/16" L x 1 3/4" H
2 handle	4 9/16 W x 8 13/16" L x 1 3/4" H
3 handle	5 3/4" W x 8 13/16" L x 1 3/4" H
4 handle	6 3/4" W x 8 13/16" L x 1 3/4" H
6 handle	9" W x 8 13/16" L x 1 3/4" H

Number of Handles	Part Number
1 handle	ATB1 + color
2 handle	ATB2 + color
3 handle	ATB3 + color
4 handle	ATB4 + color
6 handle	ATB6 + color

## Throttle Bezels

- For standard, billet, ETS and arched controls
- Measures 8 1/4" long
- Width varies depending on the number of handles
- Sold separately from controls

Description	Part Number
2 handle bezel	TB2 + color
3 handle bezel (requires 2 week lead time)	TB3 + color *
4 handle bezel	TB4 + color
6 handle bezel	TB6 + color

### Colors:

