

Single lever control		
Description	Part no.	
Control	874734	
Twin lever control		
Description	Part no.	
Control	874663	
PCU		
Power train Control Unit	150x220x80 mm (6x9x3 inches) ³⁰⁾	
HCU		
Helm Control Unit	150x220x80 mm (6x9x3 in.) ^{1B), 2B), 3)}	
Actuator		
Gear shift, drive		
Length total: 435 mm (17 in.)		
Height: 116 mm (4.6 in.)		
	881779	
EVC control panel		
Single installation	874835 ^{1A), 1B)}	
Twin installation	874836 ^{2A), 2B)}	
Key switch, main station		
Kit including one		
key switch	3587071 ^{1A),}	
Kit including two		
key switches	3587070 ^{2A)}	
Start/stop control panel, secondary station		
Panel kit	874837 ^{1B), 2B)}	
Power Trim panel		
Panel	874462	
Relay for external accessories		
Relay	12V 873765	
	24V 20374662	
Cable	1.5 m (5 ft) 881768 ^{1A), 2A)}	
Instruments		
Front ring and nut are not incl.		
Ordered separately.		
Description	Part no.	
Engine speed/hours		
Diameter 85 mm (3.35 in.)		
Black, 0–4000 rpm	881646	
White, 0–4000 rpm	881652	
Alarm		
Diameter 52 mm (2.05 in.)		
Black	874915	
White	874927	
Coolant temperature		
Diameter 52 mm (2.05 in.)		
Black, Degrees C	874904	
Black, Degrees F	874918	
White, Degrees C	874921	
White, Degrees F	874931	
Engine oil pressure		
Diameter 52 mm (2.05 in.)		
Black, bar	874908	
Black, psi	874919	
White, bar	874923	
White, psi	874932	
Voltage		
Diameter 52 mm (2.05 in.)		
Black, 12 V	881649	
White, 12 V	881658	
Black, 24 V	874913	
White, 24 V	874925	
Power Trim, analog		
Diameter 52 mm (2.05 in.)		
Black	874948	
White	874949	
Power Trim, digital		
Diameter 52 mm (2.05 in.)		
Black	881648	
White	881654	
Front ring kits, nut/clamp, black/white		
Diameter 52 mm (2.05 in.)		
Diameter 85 mm (3.25 in.)		
See order specifications.		
EVC display		
Display complete		
incl. cable 2.5 m (8 ft)	3587933	
Buzzer		
Black	874838 ^{1B), 2B)}	
Level sender		
Sender incl. cable,		
incl. cable 6 m (20 ft)	874840	

Pos	Ft	m	Part no.
1.	Engine-PCU cable, drive		
	10	3.0	3808576 ^(*)
1A.	Engine-PCU cable, reverse gear		
	10	3.0	3808579 ^(*)
1B.	Transmission cable harness, reverse gear		
	9	2.8	881866 ^(*)
2.	Standard EVC bus cable PCU-HCU, 6-pin*		
	16	5.0	8747489
	23	7.0	889550
	30	9.0	889551
	36	11.0	889552
	42	13.0	888013

^(*) One cable per engine has to be ordered.

5.	EVC control panel cable, 8-pin	5	1.5	874677	1A), 1B), 2A), 2B)
6.	Key switch cable, 6-pin	3	1.0	888004	1A), 2A)
7.	Start/stop control panel cable, 6-pin	5	1.5	874749	1B), 2B)
8.	Sync. cable, 12-pin	3	1.0	874785	2A), 2B)
9.	Instrument cable, 6-pin	5	1.5	3808852	1A), 1B), 2A), 2B)

EV3-Bus cable
Engine/Transmission-Actuator
HCU-Instruments
HCU-Control levers
HCU-Start/stopp control panel
HCU-Key switch cable
Instrument cable-PowerTrim panel

Ft	m	Part no.
5	1.5	874752*
10	3.0	874779
16	5.0	874780
23	7.0	874781
30	9.0	874782
36	11.0	874783

Ft			m			Part no.		
10	3.0	874414						

12. Extension cable, 3-pin

Instruments

Ft			m			Part no.		
3	1.0	874759						

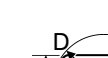
Single engine installation		
1A)	Main station	8819
1B)	Secondary station, HCU	8880
	Secondary station, kit	8891
Twin engine installation		
2A)	Main station	8890
2B)	Secondary station, HCU	8880
	Secondary station, kit	8891

**NOTE! Do not use
this poster for order**

Connector dimensions:

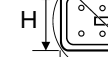
6-pin

H = 21 mm (0.82 in.)
W = 23 mm (0.88 in.)
D = 32 mm (1.26 in.)



8-pin

H = 25 mm (0.99 in.)
W = 37 mm (1.44 in.)
D = 45 mm (1.77 in.)



W = 41 mm (1.62 in.)
D = 48 mm (1.90 in.)

The drawing shows a square head bolt. The width of the head is labeled 'W' and the diameter of the shank is labeled 'D'. The head is square with rounded corners. The shank is cylindrical. The drawing is a side view of the bolt.

Colour coding of cables:
Starboard-green
Port-red

Key switch

Sync cable (8). Synchronisation of engines in twin engine installations

T-connector (3). Must be connected to HCU or PCU

Fuel level sender

Fresh water level sender

Rudder indicator

HCU

PCU

Auxiliary bus

Terminal resistor if no sync. cable

To secondary station

HCU

Engine equipped with drive DPH/DPR

Engine equipped with reverse gear

Diagnosis connection, 6-pin

NOTE! Secure cables at clamps.

IMPORTANT! Never cut or modify the Volvo Penta EVC cable harnesses. For extra power supply use the Volvo Penta relay for external accessories.

7 Mount and connect key switch alt. start/stop control panel

Dash board hole diameters:
Key switch: 33 mm (1.30")
Panel: 33 mm (1.30")

KEY

To X4 on HCU, 6-pin ext. cable (10)

START/STOP

To X4 on HCU, 6-pin ext. cable (10)

8 Mount and connect the Power Trim control panel

Dash board hole diameter: 33 mm (1.30")

Panels can also be flush-mounted. See Installation instructions.

AUX BUS

NOTE! Connect panel to port engine AUXILIARY BUS, cable (9), ext. cable (10)

Calibration mode

Lever in neutral pos.
Key in position 0.
Main switch on.

Enter calibration mode.
Press down N and D.
Hold down until all lamps in the control panel light up.
Release N and D.
Panel responds by switching off and then light up again.
Auto configuration is completed.
Key in position 0.

Idle calibration

Pos* 1.2

Lever in max throttle.
Press N 3 sec.

Pos* 1.3

Lever in reverse idling.
Press N 3 sec.

Control lever calibration, main station

Pos* 1.4

Lever in full reverse.
Press N 3 sec.

Pos* 1.5

Lever in neutral.
Press N 3 sec.
Press N 3 sec. to leave calibration mode.
N stops to flash.
Key in position 0.

Lever in neutral.
Enter calibration mode.
Start the engine.
Adjust idle rpm (700-750 rpm, D4) (600-650 rpm, D6).
Press N 3 sec.

Lever in N position calibration mode.
Stop engine.

Auto configuration

System self identification.
Should always be done at first start up, before calibration.

NOTE! If no activities are noted, the system will leave calibration mode after approx. 45 sec.

*) Calibration position is shown in the hour counter display in the tachometer. The

System self identification. Should always be done at first start up, before calibra- tion	Lever in forward idling. Press N 3 sec.	calibration mode. N stops to flash. Key in position 0.	Lever in N position calibration mode. Stop engine.
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Shift cable bending radius max. 200 mm (8")

Shift cable fitting always downwards. Cover upper slot with decal

To connector marked "GEARSHIFT CONN." on cable (1)

Connect shift cable. Lock cable with cotter pin

Port: Left hand

See label inside units

Mount PCU/HCU with three screws and plastic bushings

Apply cables evenly along rubber edge. Fit the cover with four screws

al no. on /HCU and engine should be the same

Clamping

Instruments can also be flush-mounted. See Installation instructions

12-25 mm (0.5-1.00")

Max. 2.5 mm (0.1")

2.5-12 mm (0.1-0.5")

Dash board hole diameters

Instruments:

- 85 mm (3.35")
- 52 mm (2.05")

Instruments, flush mounted:

- 83 mm (3.27")
- 49 mm (1.93")

Buzzer:

- 33 mm (1.30")

NOTE! Power Trim calibration is needed when:

- A. Factory setting of 35° tilt is not enough or a swim platform restricts the free space. Max possible setting is 50°.**
- B. Trim instruments in a twin installation read different values when the drives are in their lowest position (physical stop).**

Enter calibration mode.

Press DOWN on Power Trim button and trim drive down to its lowest position (physical stop). Press N 3 sec. Calibration completed. System leaves automatically calibration mode after 2 sec. Key in position 0.

Press UP on Power Trim button and trim up to desired max. tilt position.

Press N 3 sec.

Erasing flash codes

Flash codes are erased automatically every time engine is stopped and the key switch is turned to 0 (OFF) position.

Digit varies depending on system configuration.

Standard-right hand rotation:
Connector A to solenoid
Connector B to solenoid

Port Starboard

see Installation manual.

GEAR POT and THROTTLE SWITCH controls are for mechanical control options.

THROTTLE POT

On HCU, port ext. cable (10)

THROTTLE POT

To X7 on HCU, std. 6-pin ext. cable (10)

Buzzer

To X3 on HCU,
cable (5),
5-pin ext. cable, (10)

GAUGES

3-pin ext. cable, (12)

Plug

PCU	
X2 green	Data link – EVC bus cable
X3 light red	Engine and transmission
HCU	
X2 green	Data link – EVC bus cable
X3 light red	Auxiliary bus – Instruments, bu Power Trim panel
X4 grey	Key switch alt. start/stop panel
X5 yellow	Multi link – EVC display, Twin engine synchronisation
X7 blue	Control
X8 brown	EVC control panel

Panels can also be flush-mounted. See installation instructions.

Single engine installation

Twin engine installation

Dash board hole diameter: 33 mm (1.30")

Red port

Green starboard

CONTROL PANEL

CONTROL PANEL

To X8 on HCU, 8-pin ext. cable (11)

To X8 on HCU, port,

To X8 on HCU, stb., 8-pin ext. cable (11)

Power supply
Red (+) to 55A
fuse on engine.
Black (-) to starter

To POWER
TRIM CONN.
6-pin

The diagram illustrates the electrical layout for a boat's engine control system, divided into a Main station and a Secondary station. Key components and their connections include:

- Main Station:**
 - Neutral switches:** Not used.
 - Gear pot. switches:** Not used.
 - EVC control panel:** Connected to the HCU.
 - EVC display:** Connected to the HCU via a Sync cable.
 - Relay:** Connected to the HCU.
 - Key switch:** Connected to the HCU.
 - Instruments:** Connected to the HCU.
 - Buzzer:** Connected to the HCU.
- Secondary Station:**
 - Neutral switches:** Not used.
 - Gear pot. switches:** Not used.
 - Start/stop panel:** Connected to the HCU.
 - Actuator:** Connected to the HCU.
 - PCU (Power Control Unit):** Connected to the HCU and the Engine stb. (stabilizer) and Engine port.
 - Fuel level:** Connected to the PCU.
 - Engine stb. (stabilizer):** Connected to the PCU.
 - Engine port:** Connected to the PCU.
 - EVC display:** Connected to the HCU via a Sync cable.
 - Instruments:** Connected to the HCU.
 - Buzzer:** Connected to the HCU.
- Connections:**
 - T-connector:** Connects the HCU and PCU.
 - Sync cable:** Connects the EVC display to the HCU.
- Correct! Connection Example:**
 - The HCU is connected to the T-connector.
 - The T-connector is connected to the PCU.