

## service bulletin



No. 95-2

## 225 Pro Max/Super Magnum ECU Calibration

Mercury Hi-Performance has discovered that some 2.5 Litre 225 outboards have been released with the wrong calibration in the Electronic Control Unit (ECU).

Serial Numbers affected are: D936163 thru G205457

Test all 225 ECU's in the above serial number range using the <u>Analog</u> EFI test unit P/N 91-11001A2. If the tests do not meet the parameters on the enclosed test sheet, the ECU should be returned to Mercury Hi-Performance for recalibration.

Ship to: Mercury Hi-Performance Service Dept.-225 Calibration Recall N7480 County Rd. UU Fond du Lac, Wi 54935

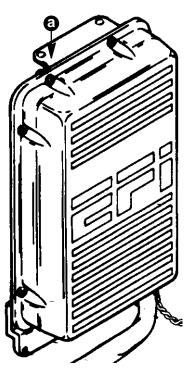
A warranty claim and a copy of the shipping bill should accompany the ECU. In emergency situations, Mercury will pay UPS Blue Label (second day) shipping charges.

Use Flat Rate Codes:

HR19 Electrical Diagnosis .05 hrs. HI12 ECU R&R .03 hrs.

Defective ECU's will be recalibrated and returned freight pre-paid. Mercury Hi-Performance will give each ECU unit returned immediate priority.

Any ECU that passes the Analog test should have a black dot painted in the location shown. All recalibrated boxes will be marked in the same way.



a - Paint Black Dot Here

## MHP 225 ECU Test

NOTE: Refer to EFI manual 90-13833-3 for tester set-up

		SWITCH POSITION	SWITCH POSITION	the EFI system	Set ECU Parameters switch to position 1.
		2 1 1 ECU PARAMETERS	B C D E SYSTEM PARAMETERS	ACU SORMALIZE	Set System Parameters switch to position A.  Rotate ECU Normalize knob to to obtain reading of 1.30 on meter. ECU is now normalized.  DO NOT move ECU Normalize knob once reading is obtained.  If 1.30 is not attained, ECU is faulty.
	Test Steps	ECU Parameters Switch Positions	System Parameters Switch Position	Specified Reading	CORRECTIVE ACTION if readings do not match
ECU TEST	1	2	Α	1.09±.04	Faulty ECU
	2	3	Α	.80± .04	Faulty ECU
	3	4	Α	$.77 \pm .04$	Faulty ECU
D	4	5	А	.53 ±.04	Faulty ECU
	5	6	А	.32 ±.04	Faulty ECU
4THROTTLE SENSOR TEST	1	5	В	From closed to wide open throttle, meter reading should move two or more numbers.	Throttle sensor faulty, out of adjustment or harness faulty if meter does not change smoothly with throttle motion.
AIR TEMPERATURE SENSOR TEST	1	1	С	Low 1.16 High 1.37	If meter reading is above 1.37, there is a faulty air temperature sensor or open sensor lead. If meter reading is below 1.16, there is a faulty air temperature sensor or shorted sensor lead.
COLD START ENRICHMENT TEST	1	6	A	Press cold start enrichment button. Meter reading should advance a minimum of three times the initial reading.  Example: .33 x 3.15 = 1.04	
IGNITION KILL TEST	1	1	А	Press Ignition Kill button. Meter reading should decrease 2 to 3 times, then fall to 0.01.  Example: 1.30  0.40  0.01	
PRESSURE TRANSDUCER TEST	1	1	А	Disconnect ECU transducer tube (a) from fitting on outboard. Draw air from tube. Meter reading should decrease as air is drawn from tube. If no number change, the ECU is faulty.	

 $<sup>{}^*\</sup>text{Note}\colon \text{Refer to Timing/Synchronizing/Adjusting Section of Service Manual for throttle position sensor adjustment.}$