

Service Bulletin

Bulletin No. 2018-04 OEM No. 2018-04

Circulate to:

Sales Manager

Accounting

Service Manager

Technician

Parts Manager

G3 Reflash Process Change

Models Affected

Models Covered	Serial Number Or Year
Joystick Piloting products	-

Scope

Worldwide

NOTICE

The service technician performing the procedures described in the bulletin must read and understand the entire service bulletin before attempting a reflash procedure. Failure to follow all service bulletin instructions and the instruction shown in CDS G3 during the reflash process may lead to a reflash failure, resulting in an inoperable or disabled vessel.

Situation

ACAUTION

If the boat has Mercury Theft Deterrent System (TDS) installed, then both key fobs need to be present to pair with the TDS module after reflash. Failure to have both fobs will result in the TDS system becoming activated and the boat will be limited to Guardian forced idle.

IMPORTANT: This new process replaces all previous joystick reflash processes outlined in earlier bulletins.

Mercury Outboard Service Bulletins	MerCruiser Service Bulletins
2016-11R3	2017-05
2016-12R3	

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The G3 reflash process was refined to make the process easier for the technician. The new process is available in: G3 2018 update 9.



The technician will no longer need to contact Mercury Technical Service to obtain the vessel personality prior to beginning the reflash process. G3 will now record and rewrite the vessel personality during the reflash process.

The following screen shots will show the new process. A video of the reflash process can be found on MercNET or by following this link: <u>https://p.widencdn.net/zpv3s8/New-G3-reflash-6_4_18</u>.

Module Reflash

IMPORTANT: Any power interruption or voltage spike occurring during the reflash process can erase the module and cause the vessel to become nonoperational. Disable the vessel battery charger and all automatic power switching devices while reflashing. Contact Mercury Marine Technical Service if you have a module that has been erased.

- 1. Connect the laptop PC to an AC power source to ensure that the power is not interrupted during the reflash procedure.
- 2. With the key switches on, the engines off, the handles in neutral, and the CDS G3 connected and running, select the **Reflash** tab; then select **Module Reflash** to begin the reflash process. Or from the G3 home screen, select **Update**.

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ORDER PRIORITY ACTION ITEMS									A	10	
1	CDS G3 is newer ver	unable to or rsion of the	communicate w software.	ith one or	more modu	les on this	vessel. T	his may be	e resolved by	updating to a	
2	2 No eBOM is selected							RESOLVE	0		
3	() connecte	d to.	d that an upgra late button to p			engine or v	vessel sys	stem that y	vou're	UPDATE	0
ENGINE	INFORMATION	Port	Starboard								
Engine	Hours										
Active I	aults										
Mainte	nance Remaining	100%	100%								

3. From the **Reflash Package Browser** screen, select the drop-down arrow and select the appropriate reflash package for your application.

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4. Select **Next** to continue.

Search		Date Range						
Enter Search	Text		- To date	Show A				
- Category	Date	e Released Cor	mments Service Bu	ulletin				
Outboard 1 sticks.pkg Joystick Piloting C	Outboard 9/2	0/2017	SOB-2016	-12R3				
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	Enter Search Category Outboard 1	Enter Search Text Category Dat Outboard 1	Enter Search Text From date Category Date Released Co	Enter Search Text From date - To date - Category Date Released Comments Service Bi Outboard 1	Enter Search Text From date - To date Show A - Category Date Released Comments Service Bulletin Outboard 1	Enter Search Text From date - To date Show All - Category Date Released Comments Service Bulletin Outboard 1	Enter Search Text From date To date Show All Outboard 1	Enter Search Text From date - To date Show All Category Date Released Comments Service Buildin Outboard 1

- 5. A **Reflash Prerequisites** screen will show if all prerequisites have been met. Ensure that your system meets the prerequisites. Address any errors that appear.
- 6. Select Next.

🕴 Reflash Prerequisites				Close X
Selected Package: JPO with Design 2 Joysticks.pkg				A
Laptop				
Battery				
Status:	High			*
Capacity:	78% (M	lin. Required 50%)		*
Performance				
Current CPU Speed:	2601 N	Hz (Min. Required 750 Mhz)		*
CPU Load:	42.45%	(Max. Allowed 60%)		*
Vessel				
System Voltage:	12.84 V	(Min. Required 11 Volts)		V
Engine RPM	0 (must	be 0 RPM)		*
CAN Bus				
CAN P Load:	33.97 (1	Max. Allowed 80%)		*
CAN H Load:	28.19(/	Max. Allowed 80%)		*
No other tools on Bus?				*
Icon Key				
W Draramuicita nascad chack 射 Draramuicita f	iled check 🛕 Prerequisite has caution	o etatue		\mathbb{V}
			*	Next
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7. The **Reflash Module View** will list the module that will be reflashed.

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8. Click Next.

		CCM TVM Module	City ID	Quantity Bus	Current Calibration	Update Calibration
	ON-LINE	Helm 1 STBD CCM				CCM18ZAXXPAAB000C_JPO_SF1P04000
	ON-LINE	Helm 1 PORT CCM	146(92)	1	CCM16ZAXXPAAE000E_JPO_SF1P01000	CCM18ZAXXPAAB000C_JPO_SF1P04000
	ON-LINE	STBD TVM	43(2B)	1	TVM13XXXOPAAG007_JPO_SF1P00_000	TVM13XXXOPAAK009_JPO_SF1P01_000
	ON-LINE	PORT TVM	44(2C)	1	TVM13XXXOPAAG007_JPO_SF1P00_000	TVM13XXXOPAAK009_JPO_SF1P01_000
0						
	le Icon Key	· · · · · · · · · · · · · · · · · · ·	O Not ur	dateable by package		
		Conflicted 🖓 Updatable	e nor of	valeable by package		

9. Select **Next** to begin the reflash process. You will be required to enter the hull I.D. and engine serial numbers before proceeding.

🕴 Reflash - Serial Number/Hull ID	-			
Selected Package: JPO with Design 2 Joysticks.pkg				
		Hull Identification Number and the for each engine on the vessel		
	Hull Id:	test		
	Starboard Serial #:	2Вхххххх		
	Port Serial #:	2Bxxxxx		
Back				Next
	合 唱	2 6 9		L3
н	HOME MODULE DATA	EROM CONFIGURATION DIAGNOSTICS REFLASH	LITERATURE	111103

10. G3 now displays what step you are in at the top of the screen.

🕴 Reflash I	Progress	
1 Start 2	Read 3 Reflash 4 Config 5 Write 6 Complete	
Selected Package:	JPO with Design 2 Joysticks, 12	
Reflash in p	progress. Do not interrup: battery power.	
Reflashing device	elout of 4	
Module Info:	STBD TVM	
Current Step:	Sending application file to module	
Progress:		
		2
		l≩
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- G3 will read all vessel personality information and store it for later use.
- Once G3 has read all the information it needs, it will proceed to reflash all the modules. It is not necessary to select each module separately.

🕴 Reflash Progress	
1 Start 2 Read 3 Reflash 4 Config 5 Write 6 Complete	
Selected Package: JPO with Design 2 Joysticks	
Reflash in progress. Do not interrup battery power.	
Reflashing device 1 out of 4	
Module Info: STBD TVM	
Current Step: Sending application file to module	
Progress:	
	Ca
P	III
H HOME MODIFIEDRA SION CONFIGURATION DAGNOSTICS BEFLASH LITERATORE	
	67502

11. When all of the modules are reflashed, G3 will prompt you to Launch Helm Setup, this will assign the City ID's to each module. Click Launch Helm Setup.

9 Reflash Progress	_
1 Start 2 Read 3 Reflash 4 Cccfig 5 Write 6 Complete	
Selected Package: JPO with Design 2 Joysticks.pkg	
Reflash is almost complete. Perform the following Helm Setup tasks to finalize.	
1. Select number of Helms and Engines.	
2. Assign City Id	
3. Lever Adapt	
Launch Helm Setu	IP 🖸
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12. When the assign City ID and Lever Adapt have been completed, click Close on the Helm Setup screen.

🔄 Lever Adapt		lose X
1 Start 2 Read 3 Refla	sh 4 Config 5 Write 6 Complete	
Configuration Assign City In	Lever Adapt Select Helm	Helm
	Select Lever Configuration	
	Choose Lever Type Choose Shift Polarity Port Normal Adapt Starboard Normal Adapt Adapt Adapt	
	S	tart 🞻
P H		
		67490

13. G3 will now restore the information that was read before it began the reflash.

• Reflash Progress	
1 Start 2 Read 3 Reflash 4 Config 5 Write 6 Complete	
Selected Package: JPO with Design 2 Joysticks.pkg	
Reflash in progress. Do not interrupt battery power.	
Working	
Module Info: Helm 1 STBD CCM	
Current Step: Restoring Vessel Personality Items	
Progress:	
	II II
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- When the Write process is complete, G3 will take you to a new Reflash Summary page.
- A successful reflash and rewrite will have all green check marks.

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• If an error occurred during any of the processes, a red X will appear in place of the green check mark. The drop-down arrows on the right will provide information on how to correct the issue. Select **Next**.

9 Reflash Progress	
1 Start 2 Read 3 Reflash 4 Config 5 Write 6 Complete	
Selected Package: JPO with Design 2 Joysticks.pkg	
Reflash Summary	
Vessel Personality data transferred. No further action required.	
✓ STED TV:	~
✓ Helm 1 STBD CCM	~
V PORT TVM	~
V Helm 1 PORT CCM	~
La .	
View Report	
	Next
P 🕆 🖻 🖓 🖌 🛍	1100
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14. The Reflash Module View will list the modules that have been reflashed.

		CCM TVM Module	City ID	Quantity Buc	Current Calibration	Update Calibration
		Helm 1 STBD CCM				CCM18ZAXXPAAB000C_JPO_SF1P04000
		Helm 1 PORT CCM				CCM18ZAXXPAAB000C_JPO_SF1P04000
1	ON-LINE	STBD TVM	43(2B)	1	TVM13XXXOPAAK009_JPO_SF1P01_000	TVM13XXXOPAAK009_JPO_SF1P01_000
1	ON-LINE	PORT TVM	44(2C)	1	TVM13XXXOPAAK009_JPO_SF1P01_000	TVM13XXXOPAAK009_JPO_SF1P01_000
18		since to ronow the bulletin in	oy 1000 10 103	, or module calibration	and render the vessel non-operational. Contact Mercury Tec	
	e Icon Key p to Date	Conflicted 🗳 Updatable	🖉 Not up	dateable by package		

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- 15. Click Finish to exit the process.
- 16. Return to the **Module Data** screen.

Play	Data Live Data System D	ata		View Faults	Freeze Frame Run History Maintenance
itatus	Module	City ID	Bus	Cel ID I	nfo
ON	STBD Engine	ANALES .	P	LEG14p0AAAD05_3S300L6G5_P11_000	
ON	Helm 1 STBD CCM	rächt	P	CCM16ZAXXPAAE000F_JPO_SF1P02000	Faults - please click the View Faults button for details.
ON	STBD TVM	222.23	Ρ	TVM13XXXOPAAK009_JP0_SF1P01_000	
ON	PORT Engine	the set	P	LEG14p0AAAD05_3S300L6G5_P11_000	
ON	Helm 1 PORT CCM	1018105	Ρ	CCM16ZAXXPAAE000F_JPO_SF1P02000	Faults - please click the View Faults button for details.
ON	PORT TVM	ACRES	P	TVM13XXXOPAAK009_JPO_SF1P01_000	
ON	Helm 1 Device 1 Display Gauge	and and	P	VV13CKAAA	
ON	VesselLink	12021	P	VV13CKAAA	
ON	Vessel Control Module	11.8074	P	AT15_prod_083_ActTrim_G1_P02_000	
ON	Helm 1 Steering Wheel	19953	P	00.06.0602	
ON	Trackpad 1	25,000	P	TPD12DAXXTAAFr1000	
ON	Trackpad 2	a the state	P	TP15GPSTABLIk002	
Resca	n This Boat			Modules 16 Online 16	Clear All Modules Faul
		f		8 6 9 4	(Å)

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- 17. Clear individual module Freeze Frame data by highlighting the individual module, and then selecting the **Freeze Frame** button on the top of the screen.
 - All PCMs
 - All CCMs
 - All TVMs
 - Vessel control module

old M	odule Data	_			N
		_	_		
Play	Data Live Data System D	ata		View Fault	s Freeze-Frame Run History M
Status	Module	City ID	Bus	Cal ID	Info
ON	STBD Engine	11000	P	LEG14p0AAAD05_3S300L6G5_P11_000	
ON	Helm 1 STBD CCM		P	CCM16ZAXXPAAE000F_JPO_SF1P02000	Faults - please click the View Faults button for details.
ON	STBD TVM	- Louis	P	TVM13XXXOPAAK009_JPO_SF1P01_000	
ON	PORT Engine	1.1.1	Р	LEG14p0AAAD05_3S300L6G5_P11_000	
ON	Helm 1 PORT CCM	1.00	P	CCM16ZAXXPAAE000F_JPO_SF1P02000	Faults - please click the View Faults button for details.
ON	PORT TVM		р	TVM13XXXOPAAK009_JPO_SF1P01_000	
ON	Helm 1 Device 1 Display Gauge		P	VV13CKAAA	
ON	VesselLink		Р	VV13CKAAA	
ON	Vessel Control Module		P	AT15_prod_083_ActTrim_G1_P02_000	
ON	Helm 1 Steering Wheel	1. A. A.	р	00,06.0602	
ON	Trackpad 1		P	TPD12DAXXTAAFr1000	
ON	Trackpad 2	26.041	Ρ	TP15GPSTABLIk002	
Resca	n This Boat			Modules 16 Online 16	Clear All Mo
		_	_		

- a Freeze Frame
- **b** Highlighted module
- c- TVM
- d CCM
- e Vessel control module
- 18. When the freeze frame data is displayed, select **Options**—the gear icon in the upper right corner. Then select **Clear History**.

Data Item		OPTION							
	Rx Doc1 State Of Health	Rx Doc 10 Soh	RX Doc7 State Of Health	Rx D	PRINT PAGE				
F_FrequencyCounte	r12	12	12	12					
F_RunTime	883.6 h	883.6 h	883.6 h	883.6	RELOAD DATA				
F_EngineState	Stall	Stall	Stall	Stall					
F_EngSpeed	0 r/min	0 r/min	0 r/min	0 r/m	CLEADHISTORY				
F_LoadPercent	0.00 %	0.00 %	0.00 %	0.00 %	0				
F_BattVolt	11.65 V	12.27 V	12.27 V	12.33	V				
F_BaroPressure	29.19 inHg	29.19 inHg	29.19 InHg	29.19	inHg				
F_MapPressure	29.16 inHg	29.19 inHg	29.16 inHg	29.18	inHg				
F_PowerLimit	5 %	5 %	5 %	5 %					
F_Demand	16.50 %	16.50 %	16.50 %	16.50	%				
F_TPSPercent	9.23 %	9.23 %	9.23 %	9.23 %	0				
F_BlockPressure	0.02 inHg	0.02 inHg	0.02 inHg	0.02 in	Hg				
F_CoolantTemp	68.00 °F	68.00 °F	68.00 °F	68.00	•k				
F_StarCIntTemp	32 °F	32 °F	32 °F	32 °F	100				
F_PortCintTemp	32 °F	32 °F	32 °F	32 °F					
F ChargeTemp	73.40 °F	73.40 °F	73.40 °F	73.40 °F					
F_FPCTotal	0.00 mg	0.00 mg	0.00 mg	0.00 mg					
F_GearPosition	Neutral	Neutral	Neutral	Neutra	1				
F_TrimPosition	0.00 %	0.00 %	0.00 %	0.00 %					
F_StarTabPosition	0.00 %	0.00 %	0.00 %	0.00 %	0				
F PortTabPosition	0.00 %	0.00 %	0.00 %	0.00 %	0				

63664

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19. Select OK.

Data Item	Rx Doc1 State Of Healt	h Rx Doc 10	Soh	RX Doc7 State Of Healt	h Rx Doc 9 Soh
FF_FrequencyCounte	er 12	12		12	12
FF_RunTime	883.6 h	883.6 h		883.6 h	883.6 h
FF_EngineState	Stall	Ctall		Ctall	Stall
FF_EngSpeed	0 r/min	UCTODV II	TEADED	0 r/min	
FF_LoadPercent	0.00 %	HISTORY H	LEAKED	0.00 %	
FF_BattVolt	11.65 V				12.33 V
FF_BaroPressure	29.19 inHg	History	h	29.19 inHg	
FF_MapPressure	29.16 inHg	riistorij	29.18 inHg		
FF_PowerLimit	5 %		5 %		
FF_Demand	16.50 %		16.50 %		
FF_TPSPercent	9.23 %				9.23 %
FF_BlockPressure	0.02 inHg		_		0.02 InHg
FF_CoolantTemp	68.00 °F		Ok O		68.00 °F
FF_StarCintTemp	32 °F		0.0	and the second se	32 °F
FF_PortCintTemp	32 °F	2 32 °F		32 °F	32 °F
FF_ChargeTemp	73.40 °F	73.40 °F		73.40 °F	73.40 °F
FF_FPCTotal	0.00 mg	0.00 mg		0.00 mg	0.00 mg
FF_GearPosition	Neutral	Neutral		Neutral	Neutral
FF_TrimPosition	0.00 %	0.00 %		0.00 %	0.00 %
FF_StarTabPosition	0.00 %	0.00 %		0.00 %	0.00 %
FF PortTabPosition	0.00 %	0.00 %		0.00 %	0.00 %
	*				

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20. Select Close to return to the Module Data screen. Continue until all modules have been cleared.

Freeze Frame Data for Module: STBD Engin	e - City ID:	Close X
	No Freeze Frame buffers present	
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Warranty

NOTE: The new flat rate amount replaces the flat rates called out in the previous bulletins, listed in the **Situation** section of this bulletin.

If the engine is within the warranty period, submit a warranty claim through your normal warranty processing channel.

- Starboard engine serial number
- Labor: 0.5 hour per boat
- Part code: 536 (CCM), 566 (TVM)
- Fail code: 79

Outside the United States and Canada: Follow the instructions issued by your local office or distributor.

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