

# REPLACING PLC BATTERY

## SERVICE BULLETIN #44

(REPLACING SERVICE BULLETIN #27)



Mitsubishi PLC models:

- A-CPU-
- FX-
- FX1N-
- FX2N-
- FX3G-
- FX3U-
- Q-CPU-

Service Bulletin #44  
Replacing PLC Batteries

The FRAMO system on board your ship - whether it's a cargo pumping system or an anti-heeling system has a Programmable Logic Controller (PLC) included in the control system. In some of these systems - and particularly on board ships delivered in the period of 8/1989 until 3/2004 - there is a battery inside the PLC unit which











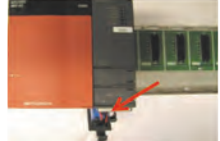
allows for the retention of data during power out.  
  
On a few occasions we received feedback from our customers that the battery had started to leak and dripped battery acid on the electronic card. This has happened in a few cases when the battery is getting very old.  
  
In view of this we recommend

that the battery is changed at least every 5th year, to prevent a more serious failure.  
  
Battery should also be changed if the 'BATT' error LED is illuminated on the PLC.  
  
To determine the PLC type onboard your vessel and the required action (if necessary) please refer to the below table:

Please put this information into your maintenance management system if the installation is equipped with a battery, to ensure correct follow up on this activity.

- Before replacing the battery, switch off the PLC power supply and change battery within the given allocated time.

- Genuine spare battery must be used – These are prepared with cable/connector which allows a quick change of the battery and can only be connected the correct way in order to prevent wrong polarity.
- Please contact any Framo Service Station if problems occur or any questions should arise.

	Appearance (Can vary slightly from order to order)	Battery location	System	Production dates	Battery installed	Battery ID	Replacement period	Comments
A-CPU			Cargo pumping system	1994 - 2006	Yes	A30677	5-Years	Battery to be changed within a maximum period of 3-minutes
FX-			Cargo pumping system	1993 - 2003	Yes	A30662	5-Years	Battery to be changed within a maximum period of 20-seconds
			Antiheeling system	1993 - 2003	Yes	A30662	5-Years	Battery to be changed within a maximum period of 20-seconds
FX1N-		N/A	Cargo pumping HPU Diesel Engine control	2001 - 2012	No	N/A	N/A	N/A
FX2N-			Cargo pumping system	1998 - 2007	Some systems	A30662	5-Years	Battery to be changed within a maximum period of 20-seconds
FX3G-		N/A	Cargo pumping HPU Diesel Engine control	2012 - Present	No	N/A	N/A	N/A
			Antiheeling system	2012 - Present	No	N/A	N/A	N/A
FX3U-			Cargo pumping system	2007 - Present	Some systems	N/A	N/A	Battery can be left in place if found. No action required.
			Antiheeling system	2007 - Present	Yes	A66227	5-Years	Battery to be changed within a maximum period of 20-seconds
Q-CPU			Cargo pumping system	2006 - Present	Yes	B42982	5-Years	Battery to be changed within a maximum period of 3-minutes



**Head office: Framo AS, P.O. Box 23, NO-5329 Florvåg, Norway, Phone: + 47 55 99 90 00, Telefax: + 47 55 99 93 80, E-mail: [oil&gas@framo.no](mailto:oil&gas@framo.no)**

Framo Services AS, P.O. Box 44, NO-5329 Florvåg, Norway, Phone: + 47 55 99 92 00, E-mail: [service@framo.no](mailto:service@framo.no)

Framo Fusa AS, Venjanaset, NO-5641 Fusa, Norway, Phone: + 47 55 99 96 00, E-mail: [marine@framo.no](mailto:marine@framo.no)

Framo Flatøy AS, Flatøyvegen 24, NO-5918 Frekhaug, Norway, Phone: + 47 55 99 94 00, E-mail: [sb-fl@framo.no](mailto:sb-fl@framo.no)

Framo Holsnøy AS, Rosslandsvegen 933, NO-5918 Frekhaug, Norway, Phone: + 47 55 99 75 00, E-mail: [piping.marine@framo.no](mailto:piping.marine@framo.no)

Framo Nederland, Edisonweg 18, P.O. Box 305, 3200 Spijkenisse, The Netherlands, Phone: + 31 181 619311, E-mail: [nederland@framo.no](mailto:nederland@framo.no)

Framo Houston, 3002 East 13th Street, La Porte, Texas 77571, USA, Phone: + 1 281 884 4800, E-mail: [houston@framo.no](mailto:houston@framo.no)

Framo Singapore, 17 Tuas View Circuit, Singapore 637575, Republic of Singapore, Phone: + 65 6210 2400, E-mail: [singapore@framo.no](mailto:singapore@framo.no)

Framo Japan, Kotsu Building 5F, 15-5, Shinbashi, 5-chome, Minato-ku, Tokyo 105-0004, Japan, Phone: + 81 3 5776 2405, E-mail: [tokyo@framo.no](mailto:tokyo@framo.no)

Framo Korea, Rm. 608, Sentum SH Valley, #1474, Woo-2 Dong, Haeundai-Ku, Busan, Korea, 612-020, Phone: + 82 51 743 6942/3, E-mail: [busan@framo.no](mailto:busan@framo.no)

Framo Shanghai, Building No.5, 123, Lane 1165, Jin Du Road, Min Hang District, Shanghai, China 201108, Phone: + 86 21 6115 5000, E-mail: [shanghai@framo.no](mailto:shanghai@framo.no)

Framo Middle East, Al Quoz Industrial Area, P.O. Box 21467, Dubai, United Arab Emirates, Phone: +971 4 886 1313, E-mail: [dubai@framo.no](mailto:dubai@framo.no)

Framo Brasil, Av. Presidente Vargas, 463 /19º andar, Rio de Janeiro - CEP 20071-003, Brazil, Phone: + 55 21 2507 7898, E-mail: [brasil@framo.no](mailto:brasil@framo.no)

Framo México, Francisco Petrarca 223-901, Col Chapultepec Morales, CP 11560 México DF, Phone: + 52 55 63 91 22 15, E-mail: [mexico@framo.no](mailto:mexico@framo.no)