



ACCUSATO™  
BE SAFE. BE FOUND

DESIGNED WITH GME'S PATENTED MICROPROCESSOR TECHNOLOGY

# MT403 SERIES 406 MHz EPIRBs



**MT403** manual and water activated class 2 EPIRB

**MT403G** manual and water activated class 2 EPIRB with GPS

**MT403FF** auto release (float free) class 2 EPIRB

**MT403FG** auto release (float free) class 2 EPIRB with GPS

- Unrivalled in technology, reliability and price.
- Ground breaking patent pending microprocessor based design delivers unparalleled performance and value.
- Zero warm-up digital technology, many other beacons can take up to 15 minutes to reach optimum operating temperature.
- High reliability solid state strobe.
- Rugged, lightweight, simple to install compact design.
- Easy, in-built self-test facility with audible alert confirms correct operation.
- **MT403/MT403G** – Automatically activates on immersion in water (when removed from the bracket) or can be manually activated if desired.
- **MT403FF/MT40FG** – Enclosed in a UV resistant float free housing that automatically deploys and activates the EPIRB when submersed to a depth of 2–4 metres.
- **MT403G** and **MT403FG** incorporate quick start 16 channel GPS receivers for faster more precise location.
- Antenna releases automatically when the unit is removed from the quick-release bracket or housing.
- 121.5 MHz homer.
- Industry first 6 year warranty, 6 year battery replacement period.



OPERATION MODES	MT403	MT403FF	MT403G	MT403FG
Activated	UHF (406 MHz) and VHF (121.5 MHz Homer) complete with high intensity strobe and audible alert.			
UHF/VHF Self Test	Comprehensive internal diagnostics with visual and audible operator feed-back. UHF test message (inverted synchronisation compatible with portable beacon testers).			
GPS Self Test	N/A	N/A	User selectable GPS signal acquisition test function	
OPERATION				
Activation	Water or manual	Auto release	Water or manual	Auto release
Duration		48 hours minimum		
Transmission		406 MHz and 121.5 MHz		
Delay		Signals commence 60 seconds after activation		
Warm Up		None required due to digital frequency generation		
VHF		121.5 MHz, 50 mW ±3 dB, swept tone AM		
UHF		406.037 MHz, 5 Watts +/- 2 dB, PSK (Digital)		
Strobe	Solid Sate IMO & RTCM Compliant - > 0.75 Candela effective intensity			
GPS				
GPS Receiver	N/A	N/A	16 Channel	16 Channel
GPS Antenna	N/A	N/A	Dielectrically loaded Quadrifiler Helix	
Acquisition - Cold Start	N/A	N/A	w< 90 seconds typically	
Acquisition - Hot Start	N/A	N/A	3.5 seconds typically	
Position	N/A	N/A	< 100 metes typically	
COSPAS-SARSAT				
UHF-Protocol/Data	All approved EPIRB short protocols		All approved EPIRB long protocols	
VHF Homer		Satellite compatible phase content		
APPROVALS *				
COSPAS-SARSAT		C/S T.001/007 Certified to Class 2 Requirements.		
GMDSS Compliance	N/A	IMO A810 (19), as amended	N/A	IMO A810 (19), as amended
Australia and New Zealand		AS/NZ4280.1:2003		
European		MED Wheelmark°		
USA	FCC, USCG	FCC, USCG	FCC, USCG	FCC, USCG
BATTERY				
Replacement		6 years (non-user replaceable)		
Chemistry		LiMnO <sub>2</sub> (0.49 g of lithium per cell)		
No./Size		5 parallel packs of 2 series cells		
PHYSICAL				
Operating		-4°F to +131°F (-20°C to +55°C)		
Storage		-22°F to +158°F (-30°C to +70°C)		
Weight (+ bracket)	1.2 (+.22) lbs 545 (+98) grams	1.2 (+2.43) lbs 545 (+1100) grams	1.26 (+.22) lbs 570 (+98) grams	1.26 (+2.43) lbs 570 (+1100) grams
Compass Safe Distance		2.3 ft (0.7 m)		
Dimensions H x W x D inches (mm)	10.2 x 4.7 x 3.3 (260 x 102 x 83)	15.2 x 6.2 x 4 (386 x 158 x 103)	0.2 x 4.7 x 3.3 (260 x 102 x 83)	15.2 x 6.2 x 4 (386 x 158 x 103)
Auto Release Mechanism	N/A	SOLAS approved Hammar H20	N/A	SOLAS approved Hammar H20
OTHER FEATURES				
Retention Lanyard		Buoyant type approximately 18 ft (5.5 m)		
Reflector	SOLAS retro-reflective tape encircling unit above waterline			
Antenna		Flexible self straightening stainless steel tape		
Stowage	Quick release manual bracket		Auto float free	
Transportation		DG Class 9 - Miscellaneous		
Specifications are subject to change without notice or obligation.			* Further International approvals pending.	

GME revolutionized the Emergency Beacon world with the introduction of the MT400, MT401, MT401FF and the MT410/G PLBs.

Utilizing the same ground breaking Australian technology, the MT403 series is the latest exciting extension to GME's growing family of innovative safety products.

The addition to the range of the GPS equipped MT403G and MT403FG with an integrated 16 channel high sensitivity receiver and quad helix antenna, provides an even faster emergency signal acquisition time and a significantly reduced search area through the geostationary (GEOSAR) satellite constellation.

Advantages of a 406 MHz EPIRB over the older analogue beacons, include worldwide coverage, position accuracy to typically less than 100 metres with GPS equipped beacons (5 kms, with the standard 406 MHz beacon) and a more stable transmitted signal resulting in minimum detection time. Most importantly the addition of a unique digitally encoded message provides Search and Rescue authorities with vital information including the country of beacon registration and the identification of the vessel in distress. Incidences of false alerts are also greatly reduced along with the unnecessary deployment of valuable rescue resources.

An auxiliary 121.5 MHz homing transmitter is included in all GME MT403 series EPIRBs to enable suitably equipped search and Rescue services to home in on the distress beacon.

COSPAS-SARSAT is the international organization that operates search and rescue satellites and ceased monitoring beacons operating in the 121.5/ 243 MHz range since February 2009.



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# EPIRBs & PLBs

Emergency Position Indicating Radio Beacons & Personal Locator Beacons



**ACCUSATO**™  
EMERGENCY BEACONS





# WHY GPS EQUIPPED BEACONS?

Since the introduction of the COSPAS SARSAT system in 1982 there have been literally thousands of lives saved around the world using standard, non GPS EPIRBs and PLBs. In an emergency situation these devices transmit a 5 watt emergency signal with a unique digital identification message and position resolution to approximately 5 kms using Doppler technology through a series of Low Earth Orbiting satellites colloquially known as LEOs.

With the introduction of the complimentary Geostationary satellites (GEOs) in 1998 coupled with the development of EPIRBs and PLBs with integrated GPS receivers was truly a quantum leap for search and rescue services across the globe.

The key benefits of a GPS equipped EPIRB, are faster detection by the geostationary satellites, typically less than ten minutes anywhere in Australia or New Zealand. Non GPS beacons using low earth orbiting satellites can take up to two hours to detect an emergency signal depending on the time of day and position.

The second and arguably the most important attribute of a GPS equipped EPIRB or PLB is the accuracy of the beacons position; by transmitting latitude and longitudinal coordinates as part of the emergency message.

GPS-enhanced Emergency Beacons are without doubt the greatest ever advancement in electronic search and rescue technology. GPS now allows PLB and EPIRB signals to tell rescuers not only who you are, but also where you are to within 100 metres, as opposed to 5 kilometres with standard beacons.

With GPS, this critical data is available in a matter of minutes, decisive benefits in situations with injured parties, cold water or poor weather, where the survival rate decreases as each minute passes.

You owe it to yourself and your loved ones to ensure that in an unforeseen emergency, search and rescue efforts are as quick and as focussed as possible.

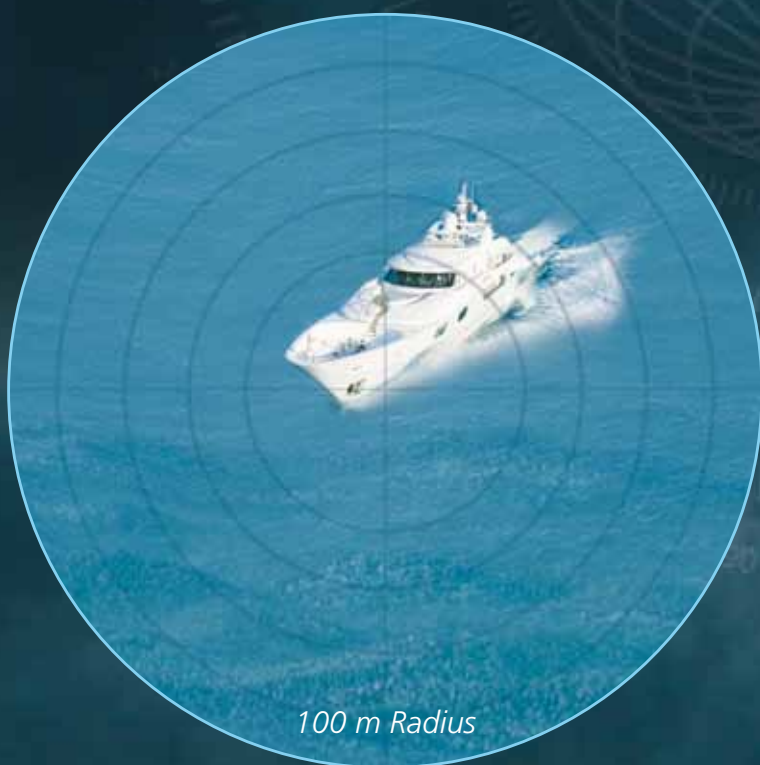
The GPS equipped beacon with its rapid alerting and a precise location could well be the difference between a successful rescue and a family tragedy.

## COMPARATIVE SEARCH AREAS

### NON GPS equipped EPIRB or PLB



### GPS equipped EPIRB or PLB



# GPS EQUIPPED 406 MHz EPIRBs

## MT406G Manually Activated with GPS



- 16 channel GPS receiver.
- Top mounted Quad Helix GPS receiving antenna.
- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Rugged, lightweight, with quick release mounting bracket.
- Full Class 2 international accredited specification.
- COSPAS-SARSAT\* worldwide operation.

## MT403G Manual/Water Activated with GPS



- 16 channel GPS receiver.
- Top mounted Quad Helix GPS receiving antenna.
- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Automatic water activation.
- Rugged, lightweight, with quick release mounting bracket.
- Full class 2 International accredited specification
- COSPAS-SARSAT\* worldwide operation.
- Non Haz-Mat battery pack.

# STANDARD 406 MHz EPIRBs

## MT400 Manually Activated



- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Rugged, lightweight, with quick release mounting bracket.
- Full Class 2 international accredited specification.
- COSPAS-SARSAT\* worldwide operation.

## MT403 Manual/Water Activated



- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- 121.5 MHz homer.
- Automatic water activation.
- Rugged, lightweight, with quick release mounting bracket.
- Full class 2 International accredited specification
- COSPAS-SARSAT\* worldwide operation.
- Non Haz-Mat battery pack.



# AUTO RELEASE (CAT. I) EPIRBs

## MT403FG AND MT403FF

Category 1 EPIRBs are a GMDSS requirement; they are also a mandatory fit on many other surveyed commercial vessels. Today many cruising yachts and larger power boats have elected to fit an auto-release EPIRB for additional security.

Fitted with a Hammar Hydrostatic release unit ensuring the EPIRB will automatically deploy and activate should the vessel sink.

A recent United States Coast Guard safety advisory notice recommended all US commercial vessels are fitted with a GPS equipped Category 1 EPIRB.



- 16 channel GPS receiver.
- Top mounted Quad Helix GPS receiving antenna.
- Automatically deploys and activates when submerged.
- 6 year battery life and 6 year warranty.
- Zero warm up period.
- Ultra high performance solid state strobe.
- Easy, in-built self-test facility with audible alert.
- Rugged UV resistant housing.
- 121.5 MHz homer.
- COSPAS-SARSAT\* worldwide operation.
- Non Haz-Mat battery pack.

## MT403FF Standard Cat. I EPIRB

Features as the MT403FG, without the GPS receiver.

# PERSONAL LOCATOR BEACONS

## MT410 AND MT410G

The GME Accusat Pocket beacons represents exceptional value for money in terms of a fully featured PLB.

Simple to operate in an emergency, the MT410G is fully buoyant without any external flotation collar, waterproof, and features full time strobe style LED. The MT410G is the perfect travelling companion for all outdoor adventurers.



- 50 channel GPS receiver.
- 7 year battery life and 7 year warranty.
- Typical accuracy - MT410G: < 100 m (328 ft)
- Fully buoyant, sealed waterproof design (exceeds IP67).
- Zero warm up period.
- Rugged, lightweight compact design.
- 121.5 MHz homer.
- National and International approvals.
- High visibility flashing light.
- Suitable for marine, aviation and land applications.
- Complete with retention strap and protective carry pouch.
- COSPAS-SARSAT\* worldwide operation.
- Non Haz-Mat battery pack.

## MT410 Standard PLB

Features as the MT410G, without the GPS receiver.

# THE GME DIFFERENCE

Standard Communications/GME is a wholly owned Australian family business first established in 1959, specialising in the design, production and distribution of marine electronics, two-way radios and television signalling systems. The company has been manufacturing Emergency Beacons in Australia for over 35 years, during this time literally thousands of people have been rescued from life threatening situations by GME EPIRBs and PLBs.

## GME ACCUSAT™ BEACONS SAVING LIVES IN AUSTRALIA AND AROUND THE WORLD

**August 2011** - Darwin to Ambon race competitor Shady Lady sinks on return leg to Australia. The skipper and two crew members are plucked from their life craft in the Banda Sea after activating a GME MT400 EPIRB. A passing merchant vessel was directed by the Australian RCC to alter course and transfer the drifting sailors to the Torres Strait.

**July 2011** - Pacific Vision, a 13.5 m sailing vessel en route from San Diego to Bundaberg, strikes the Llewellyn Reef about 150 km north-east of Gladstone after the yacht's main sail was torn and the boat drifted considerably off course. Badly damaged, the crew abandoned ship and initiated an emergency alert with their GPS equipped GME MT406G EPIRB.

**January 2011** - Canadian cross country skiers participating in an outdoor survival course received an unanticipated back country experience and real world training when a female member of the party fell, severely damaging ligaments in her knee. In minus 27°C conditions, a GME MT410G GPS enabled PLB was quickly activated. The injured party was evacuated by helicopter within two hours.

**September 2010** - The Sea-Doo Ultimate Charity Ride participants ran into un-forecast heavy weather in the Aegean Sea. After 3 hours of continuous punishment all three Sea-doo's were beginning to take on water and were unable to make any headway in the extreme conditions. The well prepared expedition leader made the decision to activate their GME MT410G PLBs. The Greek Air Force and the Santorini Coastguard coordinated the rescue effort that culminated with all three men being safely lifted ashore by helicopter.

**February 2010** - 64 Canadian students and crew are successfully rescued from the floating classroom SV Concordia after the vessel was hit by consecutive micro bursts off the coast of Brazil. Within 30 minutes the 3 master was completely underwater with all on board radio communications systems rendered inoperable; however her GME Accusat MT403FF float free EPIRB automatically activated, alerting the Brazilian coastguard who coordinated the rescue.

**December 2009** - Five days into the ten day trekking holiday in Southern Chile's Patagonian mountains two experienced Australian hikers are caught in a freak blizzard, unable to move up or down the mountain, they dig a snow cave and set off their GME GPS enabled MT410G. The emergency signal is relayed to Chilean RCC in Punta Arenas where a rescue team is dispatched directly to the reported position.

For additional and more detailed survival stories please visit [www.gme.net.au/news](http://www.gme.net.au/news)

## EPIRBs VERSES PLBs - WHAT IS THE LAW?

Within Australia, all States and the Northern Territory require recreational vessels to carry an EPIRB, generally when operating more than 2 nautical miles from the coast. However, it is strongly recommended that all craft venturing into coastal waters carry one.

**EPIRBs** are designed to float in the water to optimise the signal to the satellite. Under Australian/New Zealand approval standard AS/NZ4280.1, an EPIRB is required to operate for a minimum of 48 hours continuously once activated.

**PLBs** are designed for personal use on the land, aviation and marine environments. PLBs are generally considered a multi-environment beacon. They are required to operate for a minimum of 24 hours once activated. PLBs are approved to a separate standard (AS/NZ 4280.2) and are not an acceptable substitute for mandatory EPIRB carriage under Australian State and Territory legislation.



The Sea-Doo Ultimate Charity Ride Rescue - September 2010

## BEACON REGISTRATION IS MANDATORY

It is mandatory that all 406 MHz EPIRBs and PLBs are correctly registered with the appropriate national authority. Registration is free and forms are included with all beacons.



# EPIRB/PLB SPECIFICATIONS

MODES OF OPERATION	MT400	MT406G	MT403	MT403FF	MT403G	MT403FG	MT410	MT410G
Activated	UHF (406 MHz) and VHF (121.5 MHz Homer) complete with high intensity strobe and audible alert.							
UHF/VHF Self Test	Comprehensive internal diagnostics with visual and audible operator feed-back. UHF test message (inverted synchronisation compatible with portable beacon testers).							
GPS Self Test	-	User selectable GPS signal acquisition test function	-	-	User selectable GPS signal acquisition test function	-	-	User selectable GPS signal acquisition test function
<b>OPERATION</b>								
Activation	Manual Switch	Manual Switch	Water or manual	Auto release	Water or manual	Auto release		Deploy antenna
Duration			48 hours minimum					24 hrs minimum
Transmission			406 MHz and 121.5 MHz					
Delay			Emergency signals commence approximately 60 seconds after activation					
Warm Up			None required due to digital frequency generation					
VHF			121.5 MHz, 50 mW $\pm$ 3 dB, swept tone AM					
UHF	406.028 MHz		406.037 MHz 5 watts $\pm$ 2 dB, PSK (digital)					406.028 MHz
Strobe			Solid State - > 0.75 Candela effective intensity					
LED							20 flashes / minute, high intensity white LED	
<b>GPS</b>								
GPS Receiver	-	16 Channel	-	-	16 Channel	16 Channel	-	50 channel
GPS Antenna	-	Dielectrically loaded Quadrifilar Helix	-	-	Dielectrically loaded Quadrifilar Helix	-	-	Dielectrically loaded Quadrifilar Helix
Acquisition - Cold Start	-	< 90 seconds typically	-	-	< 90 seconds typically	-	-	34 seconds typical
Acquisition - Hot Start	-	3.5 seconds typically	-	-	3.5 seconds typically	-	-	<3.5 seconds typical
Position	-	< 100 m (328 ft) typically	-	-	< 100 m (328 ft) typically	-	-	<100 m (328 ft) typical
<b>COSPAS-SARSAT</b>								
UHF-Protocol/Data	All approved EPIRB short protocols	All approved EPIRB long protocols	All approved EPIRB short protocols	All approved EPIRB long protocols	-	-	-	All long location protocols
VHF Homer			121.5 MHz Homing Frequency					
<b>APPROVALS*</b>								
COSPAS-SARSAT			C/S T.001/T.007 Certified to Class 2 Requirements.					
GMDSS Compliance	-	-	-	IMO A810 (19), as amended	-	IMO A810 (19), as amended	-	-
Australia and New Zealand			AS/NZ4280.1:2003					AS/NZ4280.2
International	-	-	MED Wheelmark <sup>®</sup> and RTCM/USCG					CE and FCC
<b>BATTERY</b>								
Replacement		6 years from service centre or factory (non-user replaceable)						7 years from service centre or factory (non-user replaceable)
Chemistry	LiSO <sub>2</sub> (2.4g of lithium per cell)				LiMnO <sub>2</sub> (0.49 g of lithium per cell)			
No./Size	2 D Size cells		5 parallel packs of 2 series cells					4 CR17345/123A size cells
<b>PHYSICAL</b>								
Operating			-20°C to +55°C (-4°F to +131°F)					
Storage			-30°C to +70°C (-22°F to +158°F)					
Weight (+ bracket)	535 (+ 98) g 1.18 (+ 0.21) lbs	570 (+ 98) g 1.25 (+ 0.21) lbs	545 (+ 98) g 1.20 (+ 0.21) lbs	545 (+1100) g 1.20 (+ 2.42) lbs	570 (+ 98) g 1.26 (+ 0.22) lbs	570 (+1100) g 1.26 (+ 2.42) lbs	235 g 0.52 lbs	250 g 0.55 lbs
Compass Safe Distance	0.1 m (0.23 ft)		0.7 m (2.3 ft)					0.1 m (0.32 ft)
Dimensions H x W x D mm (inches)	260 x 102 x 82 (10.24 x 4.02 x 3.22)		260 x 120 x 83 (10.24 x 4.72 x 3.26)		386 x 158 x 103 (15.19 x 6.22 x 4.05)			135 x 71 x 38 (5.31 x 2.79 x 1.49)
Auto Release Mechanism	-	-	-	SOLAS approved Hammar H20	-	SOLAS approved Hammar H20	-	-
<b>OTHER FEATURES</b>								
Retention Lanyard		Buoyant type approximately 5.5 m (18 ft)					-	-
Reflector		SOLAS retro-reflective tape encircling unit above waterline					-	-
Antenna		Flexible self straightening stainless steel tape						High durability stainless steel wire
Stowage	Quick release manual bracket		Auto float free	Quick Release manual bracket	Auto float free			Padded carry pouch
Transportation	Category 9		Meets UN requirements for transport as non-hazardous cargo on board passenger aircraft					
Flotation		Waterproof to IP67 and buoyant					Waterproof and buoyant without flotation collar	

Specifications are subject to change without notice or obligation. \*For full list of international approvals see [www.gme.net.au](http://www.gme.net.au)



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