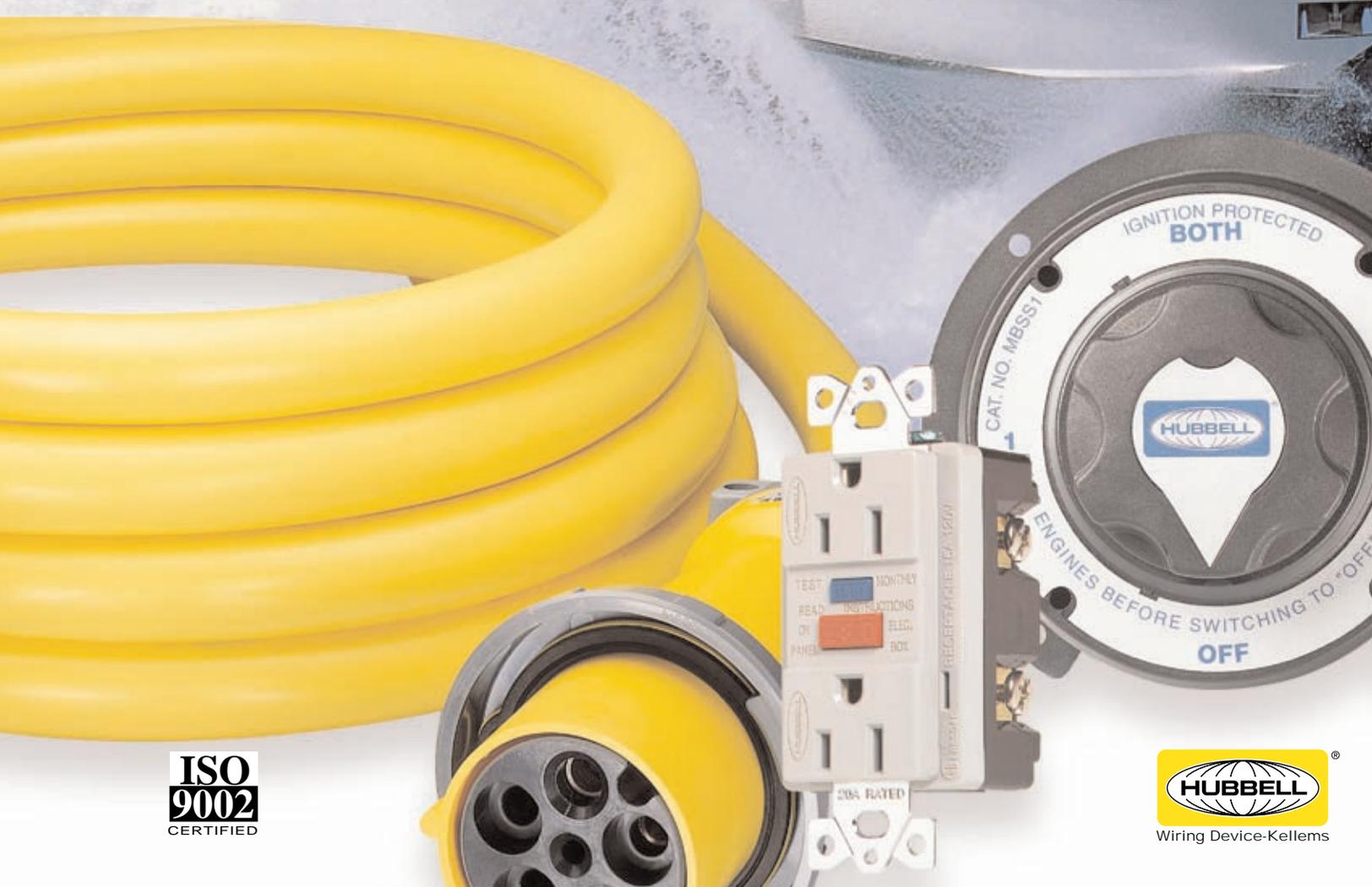


Marine Electrical Products

HUBBELL

110
110 YEARS OF EXCELLENCE



ISO
9002
CERTIFIED

HUBBELL
Wiring Device-Kellems

Marine Products
 20 Ampere, 125 Volt
 2 Pole 3 Wire
 TWIST-LOCK® Locking Type Devices



HBL23CM10



HBL74CM25WOA
 HBL7425WOA



HBL23CM11



HBL60CM31



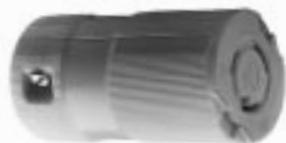
HBL23CM13



HBL60CM32



HBL23CM11V



HBL23CM13V



HBL60CM31V



HBL60CM32V



IP20
 SUITABILITY Plugs and connectors only.



20A 125V Twist-Lock Devices

Description	Catalog Number
Yellow single receptacle has heat resistant melamine body and abuse resistant nylon face.	HBL23CM10
Yellow polycarbonate spring-loaded lift cover plate for weatherproofing #HBL23CM10 receptacle. Meets the most stringent requirements of UL's three listing categories for weatherproof plates. Stainless steel screws and neoprene gasket included for mounting to FS/FD type weatherproof boxes. IP44 SUITABILITY.	HBL74CM25WOA
Same as #HBL74CM25WOA except gray in color. IP44 SUITABILITY.	HBL7425WOA
Yellow Insulgrip® plug has rugged nylon housing and detachable cord grip with range of .325-.930" (8-24MM) that utilizes a unique offset jaws arrangement to provide secure strain relief.	HBL23CM11
Yellow Seal-Tite® cover for weatherproofing #HBL23CM11 Insulgrip plug.	HBL60CM31
IP55 SUITABILITY. Note: Fits Insulgrip devices only.	
Yellow Insulgrip connector body has rugged nylon housing and detachable cord grip with range of 325-.930" (8-24MM) that utilizes a unique offset jaws arrangement to provide secure strain relief.	HBL23CM13
Yellow Seal-Tite cover for weatherproofing #HBL23CM13 Insulgrip connector body when used on extension cords and adapters.	HBL60CM32
IP55 SUITABILITY. Note: Fits Insulgrip devices only.	
Yellow Valise® plug has one-piece nylon housing, assembles easily with two screws. Built-in cord grip has range of .460-.720" (11.7-18.2).	HBL23CM11V
Yellow vinyl Seal-Tite cover for weatherproofing #HBL23CM11V Valise plug.	HBL60CM31V
IP55 SUITABILITY Note: Fits Valise devices only.	
Yellow Valise connector body has one-piece nylon housing that assembles easily with two screws. Built-in cord grip has range of .460-.720" (11.7-18.2).	HBL23CM13V
Yellow vinyl Seal-Tite cover for weatherproofing #HBL23CM13V Valise connector body. IP55 SUITABILITY.	HBL60CM32V
Note: Fits Valise devices only.	
Satin finish 302 stainless steel plate for #HBL23CM10.	S720*
Three conductor, #12AWG type STO, yellow PVC jacketed portable cord with jute fillers for added flexibility. Ideal for making cable sets, extension cords and adapters as will not mark boat's deck. Available in 250' (76.2m) lengths only.	YC312250*

*Not shown.

Marine Products

20 Ampere, 125 Volt

2 Pole 3 Wire
Straight Blade Devices



Plugs and covers only.

IP20

SUITABILITY Plugs and connectors only.



20A 125V

20A 125V Straight Blade Devices

Description	Catalog Number
Yellow Insulgrip® plug has rugged nylon housing and detachable cord grip with range of .230-.720" (5.8-18.3) that utilizes unique offset jaws arrangement for secure strain relief.	HBL53CM66C
Yellow Insulgrip connector body has rugged nylon housing and detachable cord grip with range of .230-.720" (5.8-18.3) that utilizes unique offset jaws arrangement for secure strain relief.	HBL53CM69C
Yellow Seal-Tite® cover for weatherproofing straight blade Insulgrip connector bodies, #HBL53CM69C and #HBL52CM69C, on extension cords and adapters. IP55 SUITABILITY. <i>Note: Fits Insulgrip devices only.</i>	HBL60CM18
Yellow closure plug used with #HBL60CM18 long Seal-Tite cover to prevent water from entering front of device when not in use.	HBL60CM19
Yellow Seal-Tite cover for weatherproofing straight blade Insulgrip plugs, #HBL53CM66C and #HBL52CM66C, when used to mate receptacles and connector bodies. Can also be used with Insulgrip connector bodies when mating with flanged inlets. IP55 SUITABILITY. <i>Note: Fits Insulgrip devices only.</i>	HBL60CM17
Yellow Valise® plug has one-piece nylon housing that assembles easily with two screws. Built-in cord grip has range of .460-.720" (11.7-18.2).	HBL53CM66V
Yellow Valise connector body has one-piece nylon housing that assembles easily with two screws. Built-in cord grip has range of .460-.720" (11.7-18.2).	HBL53CM69V
Yellow duplex receptacle has heat resistant melamine body. Receptacle accepts both 20A 125V and 15A 125V 2 pole, 3 wire straight blade plugs.	HBL53CM62
Single version of #HBL53CM62 duplex yellow receptacle.	HBL53CM61
Compact gray nylon panel mount outlet ideal for electric trolling motors and reel applications. Features gasketed spring-loaded lift cover for weatherproofing front and neoprene boot for weatherproofing rear. Accepts both 20A 125V and 15A 125V 2 pole, 3 wire straight blade plugs.	HBL61CM65
Yellow polycarbonate spring-loaded lift cover plate for weatherproofing duplex receptacles. Stainless steel screws and neoprene gasket included. For mounting to standard outlet boxes. IP55 SUITABILITY.	HBL52CM22*
Same as #HBL52CM22 except gray in color. IP55 SUITABILITY.	HBL5222*
Same as #HBL52CM22; except for mounting to FS/FD type weatherproof boxes. IP55 SUITABILITY.	HBL52CM21
Same as #HBL52CM21 except gray in color. IP55 SUITABILITY.	HBL5221*
Yellow polycarbonate spring-loaded lift cover plate for weatherproofing single straight blade receptacles. Stainless steel screws and neoprene gasket included. For mounting to FS/FD type weatherproof boxes. IP55 SUITABILITY.	HBL74CM23WO
Same as #HBL74CM23WO except gray in color.	HBL7423WO

*Not shown.



HBL53CM66C



HBL53CM69C



HBL60CM18
HBL60CM19



HBL60CM17



HBL53CM66V



HBL53CM69V



HBL53CM62



HBL53CM61



HBL52CM21
HBL5221

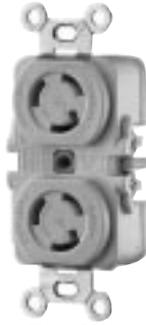


HBL74CM23WO
HBL7423WO



HBL61CM65

Marine Products
 15 Ampere, 125 Volt
 2 Pole 3 Wire
 TWIST-LOCK® Locking Type Devices



HBL47CM00



HBL52CM21
HBL5221



HBL47CM20C



HBL60CM23



HBL47CM29C



HBL60CM24



HBL47CM15



HBL47CM16



15A 125V Twist-Lock Devices

Description	Catalog Number
Yellow duplex receptacle has heat resistant body.	HBL47CM00
Yellow polycarbonate spring-loaded lift cover plate for weatherproofing #HBL47CM00 duplex receptacle. Stainless steel screws and neoprene gasket included for mounting to FS/FD type weatherproof boxes. IP55 SUITABILITY . Not CSA.	HBL52CM21
Same as #HBL52CM21 except gray in color. IP55 SUITABILITY . Not CSA.	HBL5221
Same as #HBL52CM21 except for mounting to standard boxes. IP55 SUITABILITY . Not CSA.	HBL52CM22*
Same as #HBL52CM22 except gray in color. IP55 SUITABILITY . Not CSA.	HBL5222*
Yellow Insulgrip® plug has rugged nylon housing and detachable cord grip with range of .296-.687" (7.5-17.4) that utilizes a unique offset jaws arrangement to provide secure strain relief.	HBL47CM20C
Short yellow Seal-Tite® cover for weatherproofing #HBL47CM20C Insulgrip plug when used with receptacles or connector bodies. Also can be used to weatherproof #HBL47CM29C Insulgrip connector body when used with #HBL47CM16 flanged inlet. IP55 SUITABILITY . Not CSA.	HBL60CM23
Yellow Insulgrip connector body has rugged nylon housing and detachable cord grip with range of .296-.687" (7.5-17.4) that utilizes a unique offset jaws arrangement to provide secure strain relief.	HBL47CM29C
Yellow Seal-Tite cover for weatherproofing #HBL47CM29C Insulgrip connector body when used on extension cords and adapters. IP55 SUITABILITY . Not CSA.	HBL60CM24
Panel mount flanged outlet has heat resistant melamine interior and nickel plated brass casing.	HBL47CM15
Panel mount flanged inlet has heat resistant melamine interior and nickel plated brass casing.	HBL47CM16
Three conductor, #14 AWG type STO, yellow PVC jacketed portable cord has jute fillers for added flexibility and is ideal for making cable sets, extension cords and adapters as it will not mark the boat's deck. Available in 250' (76.2m) lengths only.	YC314250*

*Not shown.

Marine Products

15 Ampere, 125 Volt

2 Pole 3 Wire
Straight Blade Devices



15A 125V Straight Blade Devices

Description	Catalog Number
Yellow single receptacle features heat resistant melamine body and abuse resistant nylon face.	HBL52CM61
Yellow duplex receptacle features heat resistant melamine body and abuse resistant nylon face.	HBL52CM62
Same as #HBL52CM62 except ivory in color.	HBL52CM62I*
Same as #HBL52CM62 except brown in color.	HBL52CM62BN*
Yellow Insulgr [®] plug has rugged nylon housing and detachable cord grip with range of .230-.720" (5.8-18.3) that utilizes a unique offset jaws arrangement for secure strain relief.	HBL52CM66C
Yellow Seal-Tite [®] cover for weatherproofing straight blade Insulgr [®] plugs, #HBL53CM66C and #HBL52CM66C, when used to mate receptacles and connector bodies. Can also be used with Insulgr [®] connector bodies when mating with flanged inlets. IP55 SUITABILITY. Not CSA. <i>Note: Fits Insulgr[®] devices only.</i>	HBL60CM17*
Yellow Insulgr [®] connector body has rugged nylon housing and detachable cord grip with range of .230-.720" (5.8-18.3) that utilizes a unique offset jaws arrangement for secure strain relief.	HBL52CM69C
Yellow Seal-Tite cover for weatherproofing straight blade Insulgr [®] connector bodies, #HBL53CM69C and #HBL52CM69C, on extension cords and adapters. IP55 SUITABILITY. Not CSA. <i>Note: Fits Insulgr[®] devices only.</i>	HBL60CM18*
Yellow Valise [®] plug has one-piece nylon housing that assembles easily with two screws. Built-in cord grip has range of .220-.660" (5.6-16.8).	HBL52CM66V
Yellow Valise connector body has one-piece nylon housing that assembles easily with two screws. Built-in cord grip has range of .220-.660" (5.6-16.8).	HBL52CM69V
Yellow Insulgr [®] plug with anchor locking screw to prevent accidental pull-out. The plug is "locked" into the receptacle when the screw is turned down so the head is flush with the plug surface. The cord grip range is .296-.687" (7.5-17.4). Not UL or CSA listed.	HBL52CM80C
Compact gray nylon panel mount inlet ideal for bass boat battery charging connection. Has gasketed spring-loaded lift cover for weatherproofing front and neoprene boot for weatherproofing rear. Will accept both 15A 125V and 20A 125V 2 pole, 3 wire straight blade connector bodies.	HBL61CM64
Same as #HBL61CM64 except black in color.	HBL61CM64BK*
Yellow polycarbonate spring-loaded lift cover plate for weatherproofing #HBL47CM00 duplex receptacle. Stainless steel screws and neoprene gasket included for mounting to FS/FD type weatherproof boxes. IP55 SUITABILITY. Not CSA.	HBL52CM21
Same as #HBL52CM21 except gray in color. IP55 SUITABILITY. Not CSA.	HBL5221
Same as #HBL52CM21 except for mounting to standard boxes. IP55 SUITABILITY. Not CSA.	HBL52CM22*
Same as #HBL52CM22 except gray in color. IP55 SUITABILITY. Not CSA.	HBL5222*
Yellow polycarbonate spring-loaded lift cover plate for weatherproofing single straight blade receptacles. Stainless steel screws and neoprene gasket included. For mounting to FS/FD type weatherproof boxes. IP55 SUITABILITY. Not CSA.	HBL74CM23WO
Same as #HBL74CM23WO except gray in color. Not CSA. IP55 SUITABILITY.	HBL7423WO

*Not shown.



HBL52CM61

HBL52CM62



HBL52CM66C



HBL52CM69C



HBL52CM66V



HBL52CM69V



HBL52CM80C



HBL61CM64



HBL74CM23WO

Marine Products Portable Ground Fault Circuit Interrupters and Testers



GFP15M



GFT2G



HBL5200



GFP315A



GFP6C15M
GFP25C15M

While conventional 3 wire grounding is essential to electrical safety on board any boat, it cannot protect against minute line-to-ground faults that cannot activate protective devices such as fuses or circuit breakers. Conventional overcurrent protection begins at 15 amperes. The fuse will blow or the breaker will open only if the current exceeds its rating. Contrary to popular belief, current values of less than 1/10 of one ampere passing through the human body can be very harmful.

A Ground Fault Circuit Interrupter (GFCI) senses any ground fault larger than 6/1000 of an ampere and shuts off the power before an accident can happen. These units are available for use with power tools or other electrical equipment on the boat or dock. The units require 120V circuits and must be used in addition to fuses and circuit breakers—not instead of them. GFCI units protect against line-to-ground faults. Hubbell's UL Listed GFCI units must be used only on a grounded system even though the grounding wire is not used in the operation of the device.

Portable Ground Fault Circuit Interrupters and Testers

Description	Catalog Number
Leather pouch for carrying the GFP115A and fastens to any tool belt.(not shown)	GFPP
This unit is small and compact – measuring only 4 ³ / ₁₆ "H x 5 ³ / ₁₆ "L x 6 ¹ / ₁₆ "W (10.6H x 13.2L x 17.0W) and weighing only 3 pounds – yet protects as many as four tools at one time. The housing is high impact yellow polycarbonate as are the liftcovers which protect the receptacles from dirt and damage. Simply insert the plug on the end of the 6' (1.8m) cord into any 60Hz 120V receptacle and then plug the equipment to be used into one of the receptacles on the unit. Incorporates a 20 Amp GFCI module that can be replaced in the field and the module provides not only ground fault protection but contains the no voltage release feature.	GFP15M
3-outlet plug-in unit (UL). Plugs into boat convenience receptacles to provide ground fault protection.	GFP315A
This unit is designed to measure the trip level of GFCI portables, receptacles, or breakers within any range from 2 to 7 milliamperes or the leakage in portable tools or appliances within a leakage range of 1 to 7 milliamperes. It can be used on any AC circuit of 110 to 130V. <i>Note: The #GFT2G is not intended to determine incorrect receptacle polarity, the "quality" of the ground, or any combination of incorrect wiring.</i>	GFT2G
This outlet circuit tester has a simple arrangement of neon lights which visually indicate correct wiring, reversed polarity, open ground wire, open neutral wire, open hot wire, hot and ground reversed and hot wire on neutral terminal, and hot terminal unwired. Simply plug the #HBL5200 into a single phase 125V 2 pole 3 wire outlet and the combination of lighted and/or unlighted lamps will immediately indicate the condition of the circuit. The instructions and symbol identification are printed on durable polyester labels permanently attached to the tester. To test other 2 pole 3 wire single phase 125V outlets, use one of the proper adapters shown on pages 28 and 29.	HBL5200

GFCI Line Cord Devices

Ideal for personal plug-in protection at marinas and onboard boats when used with pumps, drills, sanders and all portable electrical equipment. GFCI mechanism is watertight and approved for outdoor use. High visibility yellow SJTW-A power cord resists moisture, chemicals and sunlight. Two different lengths available.

GFP6C15M 6' (1.8m) line cord
GFP25C15M 25' (7.6m) line cord

GFCI Specifications

Rating: 15A 120V 60Hz 2 pole 3 wire straight blade
Trip Level: 4-6 miliamps
Trip Time: .025 seconds nominal
Frequency: 60 Hertz nominal
Voltage: 120 volts +10%, -15%
Max Interrupting Capacity: 2,000 amperes
Max Humidity: 95%
UL Class A



Marine Products

GFCI and Surge Protection

Inside the Boat



The American Boat and Yacht Council recommends the use of ground fault protected receptacles in a head, galley, machinery space or on a weather deck. Refer to section E-8.16, as noted on page 50.

Ground Fault Circuit Interrupter (GFCI) Receptacles
 These UL Listed receptacles have been designed to protect people from line-to-ground electrical shock hazards which may develop from faulty appliance, tools or defective portable cords. If a ground fault does occur and the leakage level exceeds 4 to 6 milliamps, the GFCI unit quickly acts to protect the user by opening the circuit, thus interrupting the power supply and limiting the duration of any electrical shock. After tripping, the receptacle is easily reset by pushing a button on its face. A test button allows the user to test that the GFCI is in working order.
Note: GFCI receptacles will not protect against overloads or short circuits.

Hubbell's GFCI receptacles can be mounted on any standard 2½" (63.5) deep box. A feed-thru feature provides protection not only at that receptacle but also at any other receptacle located downstream from it on the same circuit.

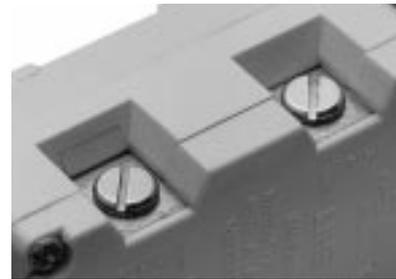
These devices meet the requirements of The National Electric Code (1987) and American Boat and Yacht Council Standard E-8.15g (1985) and will accept locking fork terminals.

Ground Fault Receptacles are also available for OEM applications. Devices rated for 15A and 20A are available in brown, ivory, gray and white. Consult Factory for Details.

Caution: Ground Fault Receptacles should not be mounted in locations exposed to salt spray nor in the engine room. For GFCI protection of such locations, downstream feeding from an internally located Ground Fault Receptacle is recommended.



GF5252MW



CLOSE-UP CONTACTS



CWP26CR

GFCI Receptacles and Surge Suppression Receptacles

Description	Catalog Number
15A 125V brown GFCI duplex receptacle. Brown nylon wall plate included.	GF5252M*
Same as #GF5252M except receptacle and plate are ivory.	GF5252MI*
Same as #GF5252M except receptacle and plate are white.	GF5252MW
Same as #GF5252M except receptacle and plate are gray.	GF5252MGY*
Gray PVC weatherproof lift cover plate for ground fault receptacles (such as Hubbell GF5252MGY) and Style Line® receptacles. For vertical mounting in standard or FS/FD type boxes.	CWP26CR
Ivory duplex surge suppression receptacle with power on indicator light and damage-alert alarm beeper.	HBL5262IS

*Not shown.

Surge Suppression Receptacles 15A 125V AC Nominal. UL Listed at 500V Max. suppressed voltage.

Suitable for ANSI/IEEE C 62.41-1980 installation categories "A" (outlets and long branch circuits) and "B" (major feeders and short branch circuits).

The Hubbell Surge Suppression Receptacle helps protect your electronic equipment from damage caused by transient voltages. The receptacle contains metal oxide varistors which dissipate the electrical energy of voltage spikes without interfering with normal operations.



HBL5262IS



HBL2132MI



CRO15



CRO20I



HBL5251



HBL5361



HBL52CM62I



HBL8200LI



HBL6079

Style Line® Receptacles

- High-Impact nylon face resists breaking, chipping and cracking.
- Will accept locking fork terminal to comply with ABYC standards.
- Available in 4 colors for any decor with matching wall plates.
- Smooth, high-gloss finish for rich appearance.

Style Line Series

Description	Catalog Number
15A 125V brown duplex receptacle. <i>See Note A</i>	HBL2132M*
Same as #HBL2132M except ivory. <i>See Note A</i>	HBL2132MI
Same as #HBL2132M except white. <i>See Note A</i>	HBL2132MW*
Same as #HBL2132M except gray. <i>See Note A</i>	HBL2132MGY

Commercial Series

Description	Catalog Number
15A 125V brown duplex receptacle. <i>See Note A</i>	CRO15
Same as #CRO15 except black. <i>See Note A</i>	CRO15BLK*
Same as #CRO15 except gray. <i>See Note A</i>	CRO15GRY*
Same as #CRO15 except ivory. <i>See Note A</i>	CRO15I*
Same as #CRO15 except white. <i>See Note A</i>	CRO15WHI
20A 125V brown duplex receptacle. <i>See Note A</i>	CRO20*
Same as #CRO20 except black. <i>See Note A</i>	CRO20BLK*
Same as #CRO20 except gray. <i>See Note A</i>	CRO20GRY
Same as #CRO20 except ivory. <i>See Note A</i>	CRO20I
Same as #CRO20 except white. <i>See Note A</i>	CRO20WHI*
15A 125V brown single receptacle.	HBL5251
Same as #HBL5251 except ivory.	HBL5251I*
20A 125V brown single receptacle.	HBL5361
Same as #HBL5361 except ivory.	HBL5361I*

Corrosion Resistant Series

Description	Catalog Number
15A 125V yellow corrosion resistant duplex receptacle. <i>Use where salt or other corrosive elements are a problem.</i>	HBL52CM62*
Same as #HBL52CM62 except brown.	HBL52CM62BN*
Same as #HBL52CM62 except ivory.	HBL52CM62I

Special Application Series

Description	Catalog Number
Illuminated receptacle 15A 125V grounding. A high quality receptacle with something extra: an illuminated face. Ideal for use in halls or as a gentle night light.	HBL8200LI

Outlet Box

Description	Catalog Number
Plastic switch/receptacle box. Measures 3 ⁹ / ₃₂ " x 2 ³ / ₁₆ " x 2 ¹ / ₂ " (83.3 x 55.6 x 63.5) deep. For mounting in walls without studs. A support strap is provided which pulls box tightly against back side of wall.	HBL6079

Note A: Will accept locking fork terminal to comply with ABYC standards.

**Not shown.*

Marine Products

Switches & Weatherproof Switch Plates

15 and 20 Ampere, 120-277 Volt



Commercial Series

Description	Catalog Number
Single-pole toggle switch for controlling AC load from one point-brown handle. <i>See Note A</i>	CS115
Same as #CS115 except gray handle. <i>See Note A</i>	CS115GY*
Same as #CS115 except ivory handle. <i>See Note A</i>	CS115I*
Same as #CS115 except white handle. <i>See Note A</i>	CS115W*
Three-way toggle switch for controlling AC load from two points-brown handle. <i>See Note A</i>	CS315
Same as #CS315 except gray handle. <i>See Note A</i>	CS315GY*
Same as #CS315 except ivory handle. <i>See Note A</i>	CS315I*
Same as #CS315 except white handle. <i>See Note A</i>	CS315W*



CS115/CS315

Special Application Series

Description	Catalog Number
20A 120V toggle switch with neon lamp set in ivory handle. Handle illuminates when switch is in "OFF" position.	HBL1221IL
20A 120V three-way toggle switch with illuminated ivory handle for controlling AC load from two points. Handles illuminate when "OFF."	HBL1223IL*
20A 120V single-pole toggle switch with neon lamp set in clear red handle. Handle illuminates when switch is "ON." Serves as instant reminder that current is flowing to an appliance.	HBL1221PL
20A 120V three-way toggle switch for controlling AC load from two points. Red handle illuminates when "ON."	HBL1223PL*
Single-pole PresSwitch® for controlling AC load from one point. Switch activated brown button.	HBL1281
Same as #HBL1281 except ivory button.	HBL1281I*
Single-pole PresSwitch® for controlling AC load from one point. brown button.	HBL1283
Same as #HBL1283 except ivory button.	HBL1283I*†
Yellow neoprene weatherproof plate for use only with PresSwitches. PresSwitch button is activated when bubble is pressed. <i>Not CSA.</i>	HBL17CM50†
Clear silicone rubber weatherproof bubble plate for use with all AC toggle switches and PresSwitches. Also ideal for use with lighted handle toggle switches. <i>Not CSA.</i>	HBL1795



HBL1221IL



HBL1221PL



HBL1281



HBL1283



HBL17CM50



HBL1795

Outlet Box

Description	Catalog Number
Plastic switch/receptacle box. Measures 3 ⁹ / ₃₂ " x 2 ³ / ₁₆ " x 2 ¹ / ₂ " (83.3 x 55.6 x 63.5) deep. For mounting in walls without studs. A support strap is provided which pulls box tightly against back side of wall. <i>Not CSA.</i>	HBL6079



HBL6079

Note A: Will accept locking fork terminal to comply with ABYC standards.

*Not shown.

†Not UL Listed.



Marine Products

Wall Plates, TV & Phone Plates

Inside the Boat



		Smooth High Impact Nylon				Smooth Metal	
		Color	Gangs	Standard Series	Mid-Size Series	Brass	Stainless Steel
		Ivory	One	P1	PJ1	B1S1	
		Gray	One	P1G	-	-	-
		White	One	P1W	PJ1W	-	-
		Brown	One	P1X	PJ1X	-	-
P1	P2	Ivory	Two	P2	PJ2	B2	S2
		Gray	Two	P2G	-	-	-
		White	Two	P2W	PJ2W	-	-
		Brown	Two	P2X	PJ2X	-	-
		Ivory	One	P8	PJ8	B8	S8
		Gray	One	P8G	-	-	-
		White	One	P8W	PJ8W	-	-
		Brown	One	P8X	PJ8X	-	-
P8	P82	Ivory	Two	P82	PJ82	B82	S82
		Gray	Two	P82G	-	-	-
		White	Two	P82W	PJ82W	-	-
		Brown	Two	P82X	PJ82X	-	-
		Ivory	One	HSP1I	PJ26	B26	S26
		Gray	One	HSP1G	PJ26G	-	-
		White	One	HSP1W	-	-	-
		Brown	One	HSP1	PJ26X	-	-
HSP1	HSP2	Ivory	Two	HSP2I	-	B262	S262
		Gray	Two	HSP2G	PJ262	-	-
		White	Two	HSP2W	-	-	-
		Brown	Two	HSP2	PJ262X	-	-
		Ivory	One	P7	PJ7	B7	S7
		Gray	One	P7G	-	-	-
		White	One	P7W	PJ7W	-	-
		Brown	One	P7X	PJ7X	-	-
P7		Ivory	Two	P18	PJ18	B18	S18
		Gray	Two	P18G	-	-	-
		White	Two	P18W	PJ18W	-	-
		Brown	Two	P18X	PJ18X	-	-
P18		Ivory	Two	-	PJ126	-	S126
		White	Two	-	PJ126W	-	-
		Brown	Two	-	PJ126X	-	-
		Ivory	One	P14	-	-	S13
		Gray	One	P14G	-	-	-
		White	One	P14W	-	-	-
		Brown	One	P14X	-	-	-
P14		Ivory	One	-	PJ216	-	-
	6 Conductor Telephone Jack	Brown	One	-	PJ216X	-	-
	(Two openings) TV plate with RG59 Connector.	Ivory	One	-	PJ212	-	-
		Brown	One	-	PJ212X	-	-
PJ212 (Not CSA)							

Marine Products Panel Mount Toggle and Rocker Switches – 12 Volt DC

Features and Benefits

Nylon stem resists abuse and corrosion.

Tapered toggle provides contemporary appearance.

Black thermoplastic body resists abuse.

Silver contacts provide longer life.

.25" (6.4) spade terminals for easy and secure termination.

5A lamp load, 15A inductive load.
Made in U.S.A.



Black thermoplastic body resists abuse.

Contemporary Euro-styling.

Integral neoprene toggle seal protects switch mechanism from moisture intrusion.

Silver contacts provide for longer life.

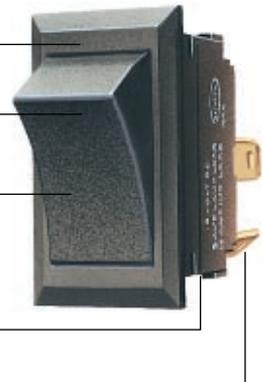
.25" (6.4) spade terminals for easy and secure termination.

5A lamp load. 15A inductive load.
Made in U.S.A.

Each 10 pack carton is perforated and becomes a sell-from dispenser/display.

Function of switch is clearly identified on face of package.

Individually bubble packed, 10 per box.



Available with Lighted Handle
Translucent Lexan handle allows light from integral 12V DC bulb to pass through for quick and easy identification of toggle position under low external light conditions (independent lamp terminals for separate or "self" switching).

Marine Products

Panel Mount Toggle & Rocker Switches

12 Volt DC

KEY CHART



1. Toggle Switch
Fits panels up to 1/4" thick when not using the back-up nut provided; fits panels up to 3/16" thick when using the back-up nut. Requires a 1/2" mounting hole.



2. Lighted toggle switch
Built-up pilot light (R=red, G=green) for night vision. Same panel specs as #1.



3. Lighted-tip toggle switch
Red pilot light visible in tip of toggle only. Same panel specs as #1.



4. Rocker switch
Requires a 1 1/2" high x 7/8" wide rectangular opening.



5. Lighted rocker switch
Built-in pilot light for night vision. Same panel specs as #4.

	Typical Applications	Description	Catalog No.	Key	
 M11SP	Lights, bilge blower, bilge pump(s), accessories	Single pole, single throw On/Off	M11SP M11LRSP M11LRGSP M11LTR MR11SP MR11LRSP*	1 2 2 3 4 5	
	Horn, starter, winches, gauges	Single pole, single throw Momentary On/Off	M11MSP* M11LTRM* MR11MSP*	1 3 4	
	 M123SP	Bilge pumps, speed selector, lights, navigation lights	Single pole, double throw. On/Off/On	M123SP M123LRGSP* M123LTR* MR123SP* MR123LRSP	1 2 3 4 5
		Bilge pumps	Single pole, double throw Momentary On/Off/On	M123MSP* MR123MSP*	1 4
		 M21SP	Trim Tabs	Single pole, double throw Momentary On/Off/Momentary On	M123MMSP* M123LTRMM* MR123MMSP* MR123LRMM*
 M223SP	Lights, accessories		Double pole, single throw On/Off	M21SP MR21SP*	1 4
	Navigation lights, wipers, dual fuel tanks		Double pole, double throw On/Off/On	M223SP MR223SP* MR223LRSP*	1 4 5
 MSB1	Navigation lights, windlass	Double pole, double throw On/Off/On (with jumper)	M223JSP*	1	
	 MH11	Winches, trim tabs, dual fuel tanks	Double pole, double throw Momentary On/Off/Momentary On	M223MMSP* MR223MMSP*	1 4
 MHB11		Provides positive seal against moisture, oil, etc. Fits any non-lighted toggle switch.	Black silicone rubber boot bonded to brass nut.	MSB1	
	For remote operation of horn.	Push button horn switch with 1 5/32" long nickel plated brass mounting stem. Terminals are .250" spade.	MH11		
	Fits MH11 horn switch.	Black push button (horn) boot.	MHB11		

Note: Many switches are available bulk in quantities of 25 pieces. Consult your factory or your marine representative for price and availability.

*Not shown.



MIS11



MIS123



MIS123A



MPP11



MPP11S



MPP11PL



MPP123

Specialty Switches

Like all Hubbell Marine Products these 12 volt, DC rated specialty switches are built for the most rugged applications—as well as every day use.

Features Include:

- Brass construction throughout the switch for added durability.
- Noncorrosive construction minimizes maintenance and insures long life.
- Life cycle tested for optimum performance.
- Manufactured in the U.S.A.

Battery Ignition/Starter Switches

Description	Catalog Number
10A at 12V DC rated; 2 position: Off/On, made of heavy duty brass construction and mounts in panels up to 1" thick. Ideal for use with #MPB11HD and #MPB11M push button switches.	MIS11
10A per circuit, 15A max. @ 12V DC; 3 position: Off, Ignition, Ignition and Start; heavy duty brass construction and mounts in panels up to 1" thick. Ideal ignition/starter replacement switch.	MIS123
10A per circuit, 15A max. @ 12V DC; 4 position: Accessory, Off, Ignition and Accessory, Ignition and Start; heavy duty brass construction and mounts in panels up to 1" thick. Ideal for accessory use without starting engine.	MIS123A

Push-Pull Switches

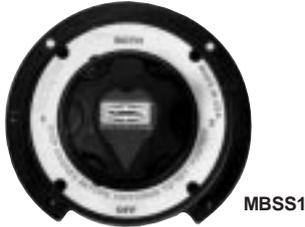
Description	Catalog Number
10A at 12V DC; 2 position: Normally Off-Pull On; ideal for inside-the-cabin general use such as controlling lights, bilge pump, blower, etc.	MPP11
10A at 12V DC; 2 position; Normally Off-Pull On; heavy duty brass construction and mounts in panels up to 3/4" thick. Gasket-sealed case enhances moisture resistance making this switch ideal for wipers.	MPP11S
10A at 12V DC; 2 position; Normally Off-Pull On. Has 12" leads for easy wiring and mounts in panels up to 5/8" thick. Rear case is vinyl enclosed making this switch ideal for exposed locations.	MPP11PL
10A at 12V DC; 3 position: Off, On #1 or On #2; this heavy duty switch mounts in panels up to 1" thick and permits the operation of two circuits independently such as the anchor and the running lights or dual wiper speed control, etc.	MPP123

Marine Products Specialty Switches

12V DC



MBDS1



MBSS1



MPB11M



MPB11HD



MPB11C



MPB11PL



MTB4F



MTB6



MTB10

Specialty Switches

Like all Hubbell Marine Products these 12 volt, DC rated specialty switches are built for the most rugged applications—as well as every day use.

Features Include:

- Brass construction throughout the switch for added durability.
- Noncorrosive construction minimizes maintenance and insures long life.
- Life cycle tested for optimum performance.
- Manufactured in the U.S.A.

Battery Selector & Disconnect Switches

Description	Catalog Number
Battery Disconnect Switch is rated for 175A continuous—800A intermittent; 6-36V DC; 2 position: Off-On; this compact, heavy duty switch is U.L. listed and ignition protected allowing total shut down of electrical system; face plate is included.	MBDS1
Dual Battery Selector & Master Disconnect Switch is rated for 310A continuous—500A intermittent; 6-36V DC; 4 position: Off, Battery #1, Battery #2, Both. This heavy duty switch can be surface or through-panel mounted (3 5/16" hole), is U.L. listed, ignition protected and Coast Guard approved.	MBSS1

Push Button Momentary Switches

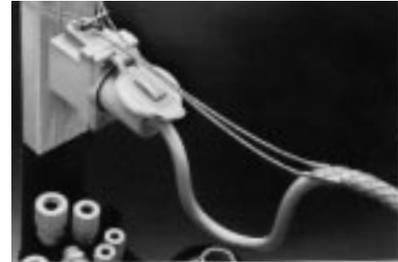
Description	Catalog Number
10A at 12V DC; 2 position: Off-Momentary On; recommended for use inside the cabin and can be used with #MIS11 ignition switch. Ideal for horns, momentary wiper control, etc. and mounts in panels up to 1" thick.	MPB11M
35A at 12V DC; 2 position: Off-Momentary On; extra heavy duty construction and recommended for use on the bridge. Ideal for use with #MIS11 ignition switch, for horns, momentary wiper control and mounts in panels up to 1" thick.	MPB11HD
35A at 12V DC; 2 position: Off-Momentary On; moisture-repellent cover adds moisture resistance and mounts in panels up to 1" thick.	MPB11C
10A at 12V DC; 2 position: Off-Momentary On. Plasticized case, moisture repellent cover and heavy duty construction make this switch ideal for your most rugged, outdoor applications. 12" wire leads provided and mounts in panels up to 1/2" thick.	MPB11PL

Terminal Blocks

Description	Catalog Number
4-gang fuse protected; 20A per circuit—50A maximum 12V DC. Common hot feed; provides point-of-use fuse protection at a single location.	MTB4F
6-gang; 20A per circuit, 12V DC. Independent hot feed. Allows for multiple feeding from a single, safe termination point.	MTB6
10-gang; 50A 12V DC; common hot feed. Allows for multiple feeding from a single, safe termination point.	MTB10

Nylon Watertight Strain Relief Cord Connectors

These Hubbell nylon cord connectors provide strain relief and a watertight seal where cable enters a piece of equipment, panel, or box. A patented GOTCHA® ring, with a split and hinge design, allows for better adjustment to the cord as the connector nut is tightened, providing superior cord gripping compared to other types. A soft neoprene bushing compresses to keep liquids out and allows the nut to be easily tightened.



Description	Catalog Number
This Kellems wire mesh strain relief grip fits over the 30A cable diameter range .640"-.750" (16.3-19.1) and removes all strain from the plug/receptacle connection. Merely wrap the split mesh grip around the cable, lace it closed with the stainless steel lace provided and place the universal bale around the post or other support structure. The wire mesh and all fittings are stainless steel.	MGRIP30
Same as the #MGRIP30 except for use on 50A cable diameter range 1.00"-1.10" (25.4-27.9).	MGRIP50
A gray male PVC adapter with 3/4" pipe thread for adapting PVC conduit to FS and FD boxes with 3/4" hub (#HBL6080, #HBL6080-OS, #HBL60CM83).	HBL6085
A gray male PVC adapter with 1" pipe thread for adapting PVC conduit to FS and FD boxes with 1" hub (#HBL60CM84).	HBL6086
Straight nylon cord connector, NPT hub size 1/2" diameter range .250"-.375" (6.4-9.5).	HBL10CM22S
Straight nylon cord connector, NPT hub size 1/2" diameter range .375"-.500" (9.5-12.7).	HBL10CM23S
Straight nylon cord connector, NPT hub size 3/4" diameter range .375"-.500" (9.5-12.7).	HBL10CM35S
Straight nylon cord connector, NPT hub size 3/4" diameter range .500"-.625" (12.7-15.9).	HBL10CM36S
Straight nylon cord connector, NPT hub size 3/4" diameter range .625"-.750" (15.9-19.1).	HBL10CM37S
Straight nylon cord connector, NPT hub size 1" diameter range .625"-.750" (15.9-19.1).	HBL10CM41S



HBL10CM22S



HBL6085



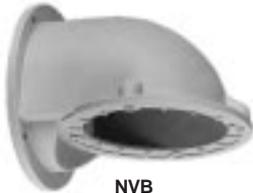
HBL6086

Marine Products Boatyard Accessory Items



NVX15GHG

NVA15GHG



NVB



HBL95CM12



OS120A

Non-Metallic Vaptight Incandescent Fixtures

These new non-metallic, vaptight incandescent fixtures offer long life and trouble-free lighting in wet locations in marinas and on boats. Some features of these new units are:

- UV resistant, gray, glass filled thermoplastic polyester box, mounting adapters and globe guards resists abuse and harmful effects of the elements.
- Excellent temperature operating range of -40°F, -40°C to +150°C for use in areas with wide temperature variations or extreme ambient temperatures.
- High temperature silicone gasketing maintains integrity and molded threads for ease of installation/removal.
- Heat resistant glass globe withstands thermal shock in wet locations and has thread type mounting to assure weathertight sealing.
- High strength protective globe guard helps prevent accidental globe and lamp breakage.
- Accommodates Type A incandescent lamps up to 150 watts.
- U.L. listed including UL1571 (Incandescent Fixtures and Fixture Fittings) and UL 595 (Marine Type Miscellaneous Fixtures).

Walkway Lighting

This rugged louver light is designed to give years of trouble-free service. It is excellent at defining the walkways without becoming a nuisance to those on board the boat because of its brightness. The unit features:

- Rugged black thermoplastic housing with textured finish that resists the elements and will not chip or peel as will painted metal units.
- Bottom hub has ½" NPT thread for conduit or pole top mounting.
- Factory pre-wired 15" leads for fast, easy installation.
- Glass diffusing globe with thread type mounting assures weathertight sealing.
- Stainless steel assembly screws resist the corrosive effects of salt spray.

Outdoor Sensor

OS-120 Motion Alert® Outdoor Sensor economizes on electrical usage with no compromise to safety or security. Sensor automatically turns incandescent lighting on and off, depending on the presence or absence of motion in the covered area. Perfect for parking areas and walkways you don't want to keep lit all night.

- Covers up to 2,220 sq. ft. Minimum 110 field of view.
- Raintight to UL Standard 96 NF.
- Operates in temperatures from -40°F to +150°F.
- Automatically deactivates during daylight.
- Factory pre-set to cover your specified area-never needs adjusting.
- Comes equipped with mounting plate to mount to any standard outdoor lampholder.

Lighting and Lighting Fixtures

Description	Catalog Number
Ceiling mount non-metallic, vaptight incandescent luminaire including the fixture, mounting box, guard and heat resistant glass globe. Accepts up to 150 watt Type A incandescent lamp (not included).	NVX15GHG
Wall mount bracket only to adapt #NVX15GHG ceiling mount fixture to a wall mount fixture. Order #NVB and #NVX15GHG to get wall mount fixture.	NVB
Pendant mount non-metallic, vaptight incandescent luminaire including fixture, mounting cap, guard and heat resistant glass globe. Accepts up to 150 watt Type A incandescent lamp (not included).	NVA15GHG
Replacement guard for #NVX15GHG and #NVA15GHG.	NVG
Heat resistant replacement globe for NVX15GHG and NVA 15GHG. Made of tempered glass.	VCGP100*
Two-louver incandescent fixture will accept up to a 40 watt medium base lamp. The socket has a nickel plated brass contact for corrosion resistance. The unit is 6½" in diameter and 6¾" high. The lamp is not included.	HBL95CM12
Motion Alert® Outdoor Sensor.	OS120A

*Not shown.

Marine Products

Marine Grade Dockside Boxes & Covers

Marine Grade Dockside Boxes & Covers

Description	Catalog Number
Black phenolic type FD (deep) weatherproof box has two 3/4" (19.1) I.P.S. molded-in knockouts. 4 9/16" H x 2 15/16" W x 3 1/4" D (115.9H x 74.6W x 82.6D) and has 22 cubic inch capacity.	HBL6080
Yellow fiberglass type FD (deep) weatherproof box has two 3/4" (19.1) I.P.S. molded-in knockouts. 4 9/16" H x 2 15/16" W x 3 1/4" D (115.9H x 74.6W x 82.6D) and has 22 cubic inch capacity.	HBL60CM83
Yellow fiberglass type FD box same as #HBL60CM83-except has two 1" (25.4) I.P.S. molded-in knockouts.	HBL60CM84
Black phenolic type FS (shallow) weatherproof box has two 3/4" (19.1) I.P.S. molded-in knockouts. 4 9/16" H x 2 15/16" W x 2 3/16" D (115.9H x 74.6W x 55.6D) and has 16 cubic inch capacity.	HBL6080OS
Black phenolic type FS weatherproof box for use with telephone and TV dockside receptacles. PVC adapter and cord connector included.	HBLPH6619
Black phenolic junction box with four 3/4" (19.1) I.P.S. molded-in knock-outs. Has 4 1/8" (104.8) diameter and is 1 7/8" (47.6) deep.	HBL6081
1/4" (6.4) thick phenolic blank cover for #HBL6081 box.	HBL6082
Black phenolic black cover plate for #HBL6080-OS.	HBL6087
Yellow fiberglass blank cover plate for use with FS and FD type boxes.	HBL60CM88



HBL6080



HBL60CM83



HBL60CM84



HBL6080OS



HBL6087
HBL60CM88



HBL6081



HBL6082



PH6619



Marine Grade Weatherproof Plates

Description	Catalog Number
Yellow polycarbonate weatherproof lift cover plate for duplex receptacles (FS/FD type weatherproof box mounting).	HBL52CM21
Same as #HBL52CM21 except gray in color.	HBL5221*
Same as #HBL52CM21 except made for standard box mounting.	HBL52CM22*
Same as #HBL52CM22 except gray in color.	HBL5222*
Yellow polycarbonate weatherproof lift cover plate for single straight blade receptacles.	HBL74CM23WO
Same as #HBL74CM23WO except gray in color.	HBL7423WO
Yellow polycarbonate weatherproof lift cover plate for old style #26CM10.	HBL74CM24WO
Same as #HBL74CM24WO except gray in color.	HBL7424WO
Yellow polycarbonate weatherproof lift cover plate for #HBL23CM10 and #HBL26CM10.	HBL74CM25WOA
Same as #HBL74CM25WOA except gray in color.	HBL7425WOA
Yellow polycarbonate weatherproof lift cover plate for 50A locking receptacles.	HBL77CM74WO
Same as #HBL77CM74WO except gray in color.	HBL7774WO

*Not shown.

Commercial Grade Weatherproof Plates

Available in a host of configurations—Twist-Lock® and Straight Blade receptacles in single or duplex as well as switches—these plates are perfect for marine use. The PVC resists deterioration over time and has high tensile and impact strength. Plus it won't support combustion. Each plate comes with a tightly sealing, rubberized gasket and a super-strong lift cover spring.



Commercial Grade Weatherproof Plates

Description	Catalog Number
Gray PVC weatherproof lift cover plate for toggle switches (such as Hubbell CS115). For vertical mounting in standard or FS/FD type boxes.	CWP1CR
Gray PVC weatherproof lift cover plate for duplex receptacles (such as Hubbell HBL52CM62). For vertical mounting in standard or FS/FD type boxes.	CWP8CR
Gray PVC weatherproof lift cover plate for ground fault receptacles (such as Hubbell GF5252M series) and stylized receptacles and switches. For vertical mounting in standard or FS/FD type boxes.	CWP26CR

Marine Products

Electrical Standards

Pertinent ABYC Standards

E-8.3. Definitions

P. Weatherproof – Constructed or protected so that exposure to the weather will not interfere with successful operation.

Note: For the purpose of this standard as applied to marine use, weatherproof implies resistance to rain, spray and splash.

Q. Watertight – So constructed that moisture will not enter the enclosure.

E-8.11. Ground Fault Protection

A. GFCI and GFP Breakers – See ABYC Standard.

B. GFCI Receptacle Devices

1. GFCI receptacle devices shall be two-pole and meet other requirements of Underwriters Laboratories, Inc. standard UL 943, "Ground Fault Circuit Interrupters" and the requirements of UL 498, "Electrical Attachment Plugs and Receptacles."
2. GFCI receptacle devices may be installed as part of a convenience outlet installation either in single outlet application or in multiple "feed-through" installations.

E-8.15. Receptacles

A. Receptacles shall be installed in locations not normally subject to rain, spray or flooding, but if receptacles are used in such areas, the following shall apply:

1. Receptacles installed in locations subject to rain, spray or splash shall be weatherproof as may be provided by a spring-loaded self-closing cover.
2. Receptacles installed in areas subject to flooding or momentary submersion shall be of a watertight design as may be provided by a threaded, gasketed cover.

B. Receptacles shall be of the grounding type with a terminal provided for the grounding (green) conductor as shown in Figures 11 and 12.

C. Receptacles and matching plugs used on AC systems shall not be interchangeable with receptacles and matching plugs used on DC systems.

D. Power wiring for receptacles shall be connected so that the grounded (white) conductor attaches to the terminal identified by letter(s) or a light color (normally silver). The ungrounded conductor(s) shall be attached to the terminal identified by letter(s) or a dark color (normally brass or copper).

E. A branch circuit supplying a combination of receptacle loads and permanently connected loads shall not supply fixed loads in excess of the following:
600 watts for a 15 ampere circuit.
1000 watts for a 20 ampere circuit (Refer to ABYC E-8.16 for load calculations).

F. Receptacles provided for the galley shall be located so appliance cords may be plugged in without crossing a traffic area, galley stove or sink.

G. If installed in a head, galley, machinery space or on a weather deck, the receptacle shall be protected by a Type A (nominal 5 milliamperes) Ground-Fault Circuit-Interrupter (GFCI). (See ABYC E-8.11.)

Note: GFCI receptacle devices are not necessarily ignition protected per ABYC E-8.8.a.

E-8.21. Shore-Power Supply

A. Power Inlet – The receptacle, or receptacles, installed to receive a connecting cable to carry AC shore-power aboard shall be a male type connector.

1. Power inlets installed in locations subject to rain, spray or splash shall be weatherproof whether or not in use.
2. Power inlets installed in areas subject to flooding or momentary submersion shall be of a watertight design whether or not in use.

1993 National Electrical Code Article 555 – Marinas and Boatyards

555-3. Receptacles

Where shore power is supplied, those accommodations for boats 20 feet (6.1m) or less in length shall be equipped with shore-power receptacles of a locking and grounding type rated at not less than 20 amperes.

Where shore power is supplied to accommodations for boats longer than 20 feet (6.1m) in length, shore-power receptacles of a locking and grounding type rated at 30 amperes or more shall be provided.

Fifteen- and 20-ampere, single-phase, 125-volt receptacles other than those supplying shore power to boats located at piers, wharfs, and other locations shall be protected by ground-fault circuit-interrupters.

(FPN No. 1): For various configurations and ratings of locking- and grounding-type receptacles and caps, see Dimensions of Caps, Plugs, and Receptacles, ANSI C73-1972, and supplement ANSI C73a-1980.

(FPN No. 2): For locking- and grounding-type receptacles for auxiliary power to boats, see Marinas and Boatyards, NFPA 303-1990 (ANSI).

(FPN No. 3): In locating receptacles, consideration should be given to the maximum tide level and wave action. See Marinas and Boatyards, NFPA 303-1990 (ANSI), for establishment of datum plane.

555-4. Branch Circuits

Each single receptacle that supplies shore power to boats shall be supplied from a power outlet or panelboard by an individual or multiwire branch circuit of the voltage class and rating corresponding to the rating of the receptacle.

(FPN): Supplying receptacles at voltages other than the voltages marked on the receptacle may cause overheating or malfunctioning or connected equipment; for example, supplying single phase, 120/240V, 3-wire loads for a 208Y/120V, 3-wire source.

555-5. Feeders and Services

The load for each ungrounded feeder and service conductor supplying receptacles that supply shore power for boats shall be calculated as follows:

For 1-4 receptacles	100%	of the sum of the rating of the receptacles
For 5-8	90%	of the sum of the rating of the receptacles
For 9-14	80%	of the sum of the rating of the receptacles
For 15-30	70%	of the sum of the rating of the receptacles
For 31-40	60%	of the sum of the rating of the receptacles
For 41-50	50%	of the sum of the rating of the receptacles
For 51-70	40%	of the sum of the rating of the receptacles
For 71-100	30%	of the sum of the rating of the receptacles
For 101 plus	20%	of the sum of the rating of the receptacles

(FPN): These demand factors may be inadequate in areas of extreme hot or cold temperature with loaded circuits for heating, air-conditioning, or refrigerating equipment.

555-6. Wiring Methods

The wiring method shall be of a type identified for use in wet locations. Extra-hard usage portable power cable listed or both wet locations and sunlight resistance shall be permitted for a feeder where flexibility is required.

Open wiring shall be permitted only by special permission.

(FPN No. 1): In granting special permission, major factors include possible contact of open wires with masts, cranes, or similar structures or equipment.

(FPN No. 2): For further information on wiring methods for various locations and for establishment of datum plane, see Marinas and Boatyards, NFPA 303-1990 (ANSI).

555-7. Grounding

A. Equipment to Be Grounded

The following items shall be connected to an equipment grounding conductor run with the circuit conductors in a raceway or cable:

1. Boxes, cabinets, and all other metal enclosures.
2. Metal frames of utilization equipment.
3. Grounding terminals of grounding-type receptacles.

Marine Products Catalog Number Index

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