



L3HARRIS™
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RELEASE SYSTEMS
PRODUCT CATALOG

PNEUMATIC PARENT WEAPONS EJECTOR RACKS

Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> BRU-71/A	> MQ-9 Reaper	<ul style="list-style-type: none"> > Settable pitch control for each piston > Seven feet-per-second (FPS) end-of-stroke velocity (500-pound store) > Piston stroke four inch > Pneumatic in-flight lock > Self-latching hooks > Single stage piston 	> Pneumatic pressure 3,000 psi	> 24 x 5 x 2 in	> 19.6 lbs	> Up to 1,000-lb class	> Bolt-in pylon 14-inch spacing on hooks to weapons
> BRU-67/A	> F-35 Lightning II	<ul style="list-style-type: none"> > Semi-automatic swaybrace integral with eject piston providing store restraint > Arming units > Reversible in-flight lock > One centralized pitch control in pneumatic power module (PPM) with five pitch control settings > Status provided via controller area network (CAN) bus > 20 FPS end-of-stroke velocity (500-pound store) > Piston stroke 6.9 inch 	> Pneumatically powered with 5,000-psi clean-air airborne compressor system	> 34 x 13 x 4 in	> 65 lbs	> 500 / 1,000 lbs	> Internal carriage on short take-off and vertical landing aircraft (STOVL) with 14-inch suspension hooks
> BRU-68/A	> F-35 Lightning II	<ul style="list-style-type: none"> > Semi-automatic swaybrace integral with eject piston providing store restraint > Arming units > Reversible in-flight lock > One centralized pitch control in PPM with five pitch control settings > Status provided via CAN bus > 20 FPS end-of-stroke velocity (500-pound store) > Piston stroke 6.9 inch 	> Pneumatically powered with 5,000-psi clean-air airborne compressor system	> 37 x 13 x 4 in	> 86 lbs	> 500 / 1,000 / 2,000 lbs	> Internal carriage and external pylons with 14- or 30-inch suspension hooks
> BRU-75/A	> P-8A Poseidon	<ul style="list-style-type: none"> > End-of-stroke velocity 19.8 – 7.1 FPS (500-lb store) depending on pitch setting > Piston stroke 6.6 inch > Two stage piston 	> Pneumatic pressure 5,000 psi	> 30 x 4 x 4 in	> 62 lbs	> 500 / 1,000 lbs	> Bolt-in pylon 14-inch spacing on hooks to weapons
> BRU-76/A	> P-8A Poseidon	<ul style="list-style-type: none"> > End-of-stroke velocity 21.8 – 7.4 FPS (500-pound store) depending on pitch setting > End-of-stroke velocity 16.9 – 7.1 FPS (1,000-pound store) depending on pitch setting > Piston stroke 8.805 inch > Two stage piston 	> Pneumatic pressure 5,000 psi	> 33 x 8 x 4 in	> 91 lbs	> 500 / 1,000 / 2,000 lbs	> Bolt-in pylon 14- or 30-inch spacing on hooks to weapons



BRU-71/A



BRU-67/A & BRU-68/A



BRU-75/A & BRU-76/A

SMART MULTIPLE CARRIAGE RACKS

Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> BRU-78/A	> Unmanned aerial vehicle (UAV) > Light attack	> Universal Armament Interface (UAI) Type 1 and 2 carriage system > Can carry miniature munition store interface (MMSI) and MIL-STD-1760 stores > Incorporates two BRU-71/A ejector units	> Pneumatic pressure 3,000 psi	> 61 x 7 x 33 in	> 88 lbs	> 250 - 500 lbs	> 14-inch lugs to parent rack
> BRU-57	> F-16 Fighting Falcon	> MIL-STD-1760 Class II signals – Dual redundant MIL-STD-1553 communications – Audio – 115 VAC, 3-phase – High bandwidth 1 (GPS) and 3 – 28 VDC 1 (10 amps per store available) – 28 VDC 2 – Address lines – Connector-mated status – Structure ground – Release consent > BRU-46/A ejector signals implemented – Dual cartridges – Store sensing – Arming units > 115 VAC to 28 VDC power converter provides clean 28 VDC power to carried weapons > Transparent to weapons	> Two BRU-46 ejector units > Dual redundant pyrotechnic > Hot gas filtration	> 70 x 9 x 31 in	> 264 lbs	> 500 / 1,000 lbs	> Aircraft - 30 inch > Weapon - 14 inch > MIL-STD-1760 class II to aircraft and weapons
> BRU-55	> F/A-18 Super Hornet	> MIL-STD-1760 Class II signals – 115 VAC, 3-Phase – High bandwidth 1 and 3 – Low bandwidth – 28 VDC 1 (10 amps per store available) – 28 VDC 2 – Address lines – Release consent – Interlock > DAC4010 ejection function – Cartridges – Store sensing – In-flight operable bomb release lock (IFOBRL) – Nose and tail arming	> Two DAC4010 ejector units pyrotechnic > Hot gas filtration	> 70 x 8 x 29 in	> 210 lbs	> 500 / 1,000 lbs	> Aircraft - 30 inch > Weapon - 14 inch > MIL-STD-1760 class II to aircraft and weapons
> BRU-70	> AV-8B Harrier	> Three store UAI Type 1 carriage system	> Three MAK77 ejector units pyrotechnic	> 68 x 17 x 17 in	> 135 lbs	> 500 / 1,000 lbs	> Aircraft - 30 inch > Weapon - 14 inch



BRU-78/A



BRU-57



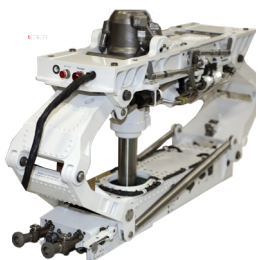
BRU-55



BRU-70

MISSILES AND SONOBUOY LAUNCHERS

Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> LAU-142/A AMRAAM Vertical Eject Launcher (AVEL)	> F-22/A Raptor	<ul style="list-style-type: none"> > 27 FPS end-of-stroke velocity > Missile restraint throughout stroke > Optimized weight-to-performance design minimizes deflection > Hydraulic loading ground extend and retract time is three seconds > Aircraft hydraulic power converted to pneumatic energy for ejection 	> Pneumatic using aircraft hydraulic power	> 40 x 9 x 18 in	> 115 lbs	> AIM-120C Advanced Medium-Range Air-to-Air Missile (AMRAAM)	> Internal carriage and ejection of AIM-120 AMRAAM
> LAU-147/A	> F-35 Lightning II	<ul style="list-style-type: none"> > Launcher hooks mate with forward and center hangers of missile > Swaybraces integral with ejector piston providing store restraint and motion departure control > Self-adjusting, self-centering and load-limiting swaybrace system > Two stage ejectors with an eight-inch stroke > Umbilical connector compatible with AIM-120C connector > Reversible in-flight lock > Status provided via CAN bus > Nose down pitch rate not to exceed 1 radian per second at end-of-stroke > 25 FPS end-of-stroke velocity > 37 Gs max acceleration and 12,000-pound maximum ejection force 	> Pneumatic using 5,000-psi clean-air from airborne compressor system	> 43 x 7 x 4 in	> 63 lbs	> AIM-120C AMRAAM	> Internal carriage and ejection of AIM-120 AMRAAM
> Sonobuoy Rotary Launch System (SRL)	> P-8A Poseidon	<ul style="list-style-type: none"> > Holds up to 10 sonobuoys > Capable of launching a buoy every three seconds > Reloadable in flight > Can launch 40 buoys with a 5,000-psi charge > Ejects A-size sonobuoys from LAU-126/A container > 32 – 46 FPS end-of-stroke velocity, depending on weight 	> Pneumatic using 2,000 – 5,000-psi clean-air from airborne compressor system	> 33 x 60 x 33 in	> 270 lbs	<ul style="list-style-type: none"> > A-size sonobuoys > Potential for other sizes 	> Base mounted to aircraft
> Sonobuoy Single Launch System (SSL)	> P-8A Poseidon	<ul style="list-style-type: none"> > Holds and launches one sonobuoy > Reloadable in flight > Ejects A-size sonobuoys from LAU-126/A container > End-of-stroke velocity from 32 – 46 FPS velocity, depending on weight 	> Pneumatic using 2,000 – 5,000-psi clean-air from airborne compressor system	> 28 x 29 x 12 in	> 37 lbs	<ul style="list-style-type: none"> > A-size sonobuoys > Potential for other sizes 	> Base mounted to aircraft



LAU-142/A



LAU-147/A



SONOBUOY ROTARY LAUNCHER



SONOBUOY SINGLE LAUNCHER

PYROTECHNIC PARENT WEAPONS EJECTOR RACKS

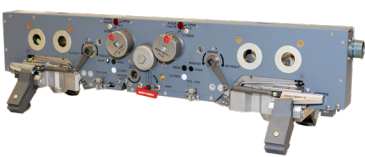
Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> BRU-46/A	> F-15E Strike Eagle > F-22 Raptor	> Semi-automatic sway bracing > 20 FPS end-of-stroke velocity	> Dual redundant pyrotechnic > Hot gas filtration	> 28 x 6 x 2 in	> 40 lbs	> 1,000 lbs	> Bolt-in pylon 14-inch spacing on hooks to weapons
> BRU-47/A	> F-15E Strike Eagle > F-22 Raptor	> Semi-automatic sway bracing > 14.4 FPS end-of-stroke velocity	> Dual redundant pyrotechnic > Hot gas filtration	> 36 x 7 x 3 in	> 86 lbs	> 2,000 lbs	> Bolt-in pylon 14- or 30-inch spacing on hooks to weapons
> BRU-56/A (modified)	> B-1B Lancer	> Modified BRU-56/A currently under development	> Dual redundant pyrotechnic	> 49 x 12 x 12 in	> 105 lbs (estimated)	> 500 / 1,000 / 2,000 lbs	> Bolt to rotary launcher 14- or 30-inch spacing on hooks to weapons

ELECTRIC CARRIAGE RELEASE SYSTEMS (IN DEVELOPMENT)

Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> 14-inch Electric Rack	> Light attack > Rotary wing > Bomber	> Electric actuated weapons release rack that incorporates all current and approved safety features and user interface	> Gravity release	> 24 x 5 x 2 in	> 15 lbs	> 500 / 1,000 lbs	> 14-inch lugs to parent rack
> 14- or 30-inch Electric Rack	> Light attack > Rotary wing > Bomber	> Electric actuated weapons release rack that incorporates all current and approved safety features and user interface	> Gravity release	> 33 x 8 x 4 in	> 65 lbs	> 500 / 1,000 / 2,000 lbs	> 14-inch lugs to parent rack

SONOBUOY LAUNCHERS (IN DEVELOPMENT)

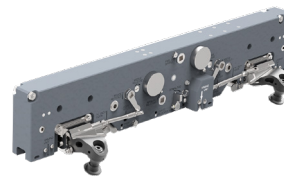
Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> Modular Launch Tube (MLT)	> UAV > Light attack > Rotary wing	> Externally ground-loaded individual launch station > Holds and launches one sonobuoy > Ejects A-size sonobuoys from LAU-126/A container > Functional as stand-alone launcher or configurable in multiples for integration into system-level solution > Features buoy sensor to ensure positive carriage and launch	> Pneumatically powered with 1,000 – 5,000 psi clean air	> 45-inch length by six inch diameter	> 10 lbs	> A-size sonobuoys > Potential for other sizes	> Variable (external or internal mounting)
> Sonobuoy Dispenser System (SDS)	> UAV > Light attack	> Pylon-mounted, multi-station pneumatic sonobuoy launcher based around multiple MLTs arranged in an external pod > Ejects A-size sonobuoys from LAU-126/A containers > Externally ground-loaded	> Pneumatically powered with 1,000 – 5,000 psi clean air	> Variable depending on configuration (e.g. number of MLT stations)	> Variable depending on configuration (e.g. number of MLT stations)	> A-size sonobuoys > Potential for other sizes	> Mates to standard BRU with 14/30-inch hooks



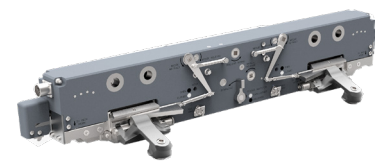
BRU-46/A



BRU-47/A



14-INCH ELECTRIC RACK



14- OR 30-INCH ELECTRIC RACK



BRU-56/A



MODULAR LAUNCH TUBE



SONOBUOY DISPENSER SYSTEM

CARRIAGE RELEASE SYSTEMS – UK

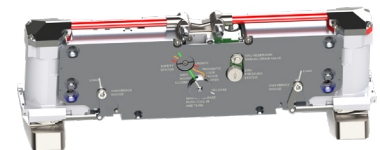
Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
<ul style="list-style-type: none"> > Wasp > Hornet 	<ul style="list-style-type: none"> > Special purpose aircraft (SPA) > UAV 	<ul style="list-style-type: none"> > Hook closed sensor > In-flight lock > Store diameters three to twelve inches > Self-latching hook > Spring-loaded sway bracing provides positive separation > Hornet has internal electrical umbilical for weapon comms > Mating weapon mini hardback with lug and mission store interface (MSI) 	<ul style="list-style-type: none"> > Electro-mechanical gravity release 	<ul style="list-style-type: none"> > Wasp 6 x 4.5 x 1.5 in > Hornet 8.5 x 4.5 x 1.5 in 	<ul style="list-style-type: none"> > Wasp 1.7 lbs > Hornet 2.1 lbs 	<ul style="list-style-type: none"> > 50 lbs maximum 	<ul style="list-style-type: none"> > Single hook (100 lbs lug)
<ul style="list-style-type: none"> > Gnat 	<ul style="list-style-type: none"> > SPA > UAV 	<ul style="list-style-type: none"> > Self-latching hooks > Stored energy actuator > Soft ejection option > In-flight lock > Light and heavy duty versions 	<ul style="list-style-type: none"> > Electro-mechanical gravity release > Soft eject 	<ul style="list-style-type: none"> > 15 x 6 x 5 in 	<ul style="list-style-type: none"> > Light duty (LD) 6.2 lbs > Heavy duty (HD) 11.1 lbs 	<ul style="list-style-type: none"> > LD 150 lbs maximum > HD 415 lbs maximum +/- 2G roll 	<ul style="list-style-type: none"> > 14-inch centers
<ul style="list-style-type: none"> > Scorpion 	<ul style="list-style-type: none"> > Multiple store carriers > SPA > UAV 	<ul style="list-style-type: none"> > Twin-stage telescopic pistons > Semi-automatic crutching > Settable pitch control for each piston > In-flight lock > High end of stroke velocity 	<ul style="list-style-type: none"> > External-pneumatic (cold gas) eject 	<ul style="list-style-type: none"> > 20 x 7 x 3.5 in 	<ul style="list-style-type: none"> > 24 lbs 	<ul style="list-style-type: none"> > 670 lbs maximum 	<ul style="list-style-type: none"> > 14-inch centers
<ul style="list-style-type: none"> > Pneumatic Missile Eject Launcher (PMEL) 	<ul style="list-style-type: none"> > Fast jet 	<ul style="list-style-type: none"> > Non-pyrotechnic missile eject launcher > Carries and releases Meteor/AMRAAM > Twin-stage telescopic pistons > Automatic snubbing > In-flight lock 	<ul style="list-style-type: none"> > External-pneumatic (cold gas) eject 	<ul style="list-style-type: none"> > 105 x 8 x 5 in 	<ul style="list-style-type: none"> > 85 lbs 	<ul style="list-style-type: none"> > 420 lbs 	<ul style="list-style-type: none"> > STANAG 3842
<ul style="list-style-type: none"> > Modular Advanced Lightweight System (MALTS)-2 > MALTS-4 	<ul style="list-style-type: none"> > SPA > Fast jet 	<ul style="list-style-type: none"> > Non-pyrotechnic practice bomb carrier > Carries two and four practice bombs > Accepts all NATO practice stores > Self-latching hook > No first-line servicing > Adapter enables laser guided training round (LGTR) carriage 	<ul style="list-style-type: none"> > Electro-mechanical soft eject 	<ul style="list-style-type: none"> > Two station 55 x 6.5 x 10 in > Four station 55 x 6.5 x 19 in 	<ul style="list-style-type: none"> > Two station 39 lbs > Four station 71 lbs 	<ul style="list-style-type: none"> > Two station 25 lbs > Four station 25 lbs 	<ul style="list-style-type: none"> > 14-inch centers
<ul style="list-style-type: none"> > Select precision effects at range (SPEAR) carrier (3 or 4 station) 	<ul style="list-style-type: none"> > F-35B > Typhoon 	<ul style="list-style-type: none"> > Three- or four-station carriage and release system for the SPEAR capability air-to-ground missiles > 23 FPS end-of-stroke velocity 	<ul style="list-style-type: none"> > External pneumatic (cold gas) eject 	<ul style="list-style-type: none"> > Three station 81 x 15 x 25 in > Four station 126 x 9 x 17 in 	<ul style="list-style-type: none"> > 260 lbs 	<ul style="list-style-type: none"> > 500 lbs 	<ul style="list-style-type: none"> > 14-inch centers



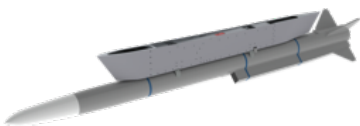
WASP / HORNET



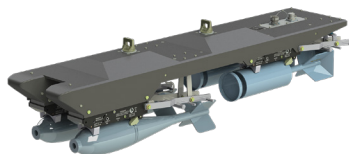
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SCORPION



PMEL



MALTS



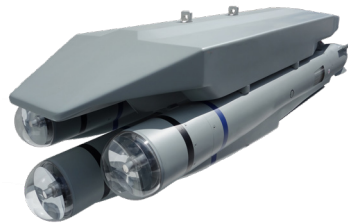
SPEAR

CARRIAGE RELEASE SYSTEMS – UK (IN DEVELOPMENT)

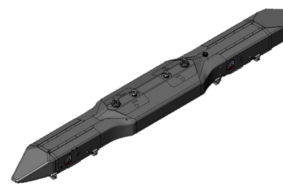
Nomenclature	Platform(s)	Features	Ejection force source	Physical dimensions (L x H x W)	Weight	Weapon class	Aircraft mounting hook spacing to weapon
> Sabre	> SPA > UAV	> Uses two Gnat HD release units (RU) > Common strongback structure enables an optional center-line station (i.e. 1,245-pounds total weapon load-out)	> Electro-mechanical gravity release	> Twin 10 x 43 x 23 in > Triple 14 x 51 x 23 in	> Twin - 40 lbs > Triple - 53 lbs	> 415 lbs maximum	> 14-inch centers
> 3 x 250 lbs	> Fast jet	> Common weapon launcher > Uses three Scorpion electric release units (ERU) > Adapters to convert to three rail launched missiles	> Internal-pneumatic (cold gas) eject	> 79 x 16 x 26 in	> 275 lbs	> 250 lbs	> 14- or 30-inch centers
> 4 x 250 lbs	> Fast jet	> Uses four Scorpion ERUs	> Internal-pneumatic (cold gas) eject	> 38 x 10 x 18 in	> 330 lbs	> 250 lbs	> 14- or 30-inch centers
> 2 x 500 lbs	> Fast jet	> Common weapon launcher > Uses two Scorpion ERUs	> Internal-pneumatic (cold gas) eject	> 79 x 16 x 26 in	> 270 lbs	> 500 lbs	> 30-inch centers
> 2 x 50 lbs	> SPA > UAV	> Uses two Hornet RUs	> Electro-mechanical gravity release	> 24 x 8 x 14 in	> 16 lbs	> 50 lbs maximum	> 14-inch centers
> 2 x 50 lbs	> SPA > UAV	> Uses two Hornet RUs	> Electro-mechanical gravity release	> 60 x 8 x 10 in	> 34 lbs	> 50 lbs maximum	> 14-inch centers
> 2 x 100 lbs	> SPA > UAV	> Uses two Gnat RUs > Four-station concept available	> Electro-mechanical gravity release	> 60 x 8 x 10 in	> 45 lbs	> 100 lbs maximum	> 14-inch centers
> 3 x 50 lbs	> SPA > UAV	> Uses three Hornet RUs > Option to mount alternately on a Hellfire rail	> Electro-mechanical gravity release	> 79 x 8 x 10 in	> 56 lbs	> 50 lbs maximum	> 14-inch centers



SABRE



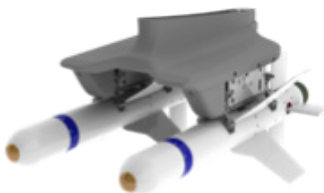
3 X 250



4 X 250



2 X 500



2 X 50



2 X 50



2 X 100



3 X 50

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Release Systems Product Catalog DS8126 MC

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