



TORPEDO PROGRAM PARTICIPATION

LIBERTY ELECTRONICS INC. HAS WORKED WITH THE FOLLOWING TORPEDO TEAMS OVER THE YEARS...



- Gould Naval Systems
- Westinghouse Naval Systems
- AlliedSignal
- Hughes Naval Systems
- Dewey Electronics
- Naval Ships Parts Control Center (NSPCC)
- Babcock & Wilcox Defense
- Alliant Tech
- Northrop Grumman
- U.S. Navy Keyport
- U.S. Navy Newport
- Raytheon Integrated Defense Systems
- Progeny Systems
- Lockheed Martin-Sippican
- Killdeer Mountain Mfg.

LIBERTY ELECTRONICS INC....



- Led the redesign effort on the MK-50 Afterbody cables
- Designed many of the cable assemblies on the MK-54 Torpedo System
- Participated on the Development phase, LRIP I, LRIP II & full rate production of the MK-54 Torpedo Program
- Was part of the Technical Interface effort for afterbody cable design improvements on the MK-54 Lightweight Program
- Produced Warhead cables on both the MK-48 ADCAP & MK-50 Lightweight Programs
- Produced the Fleet Exercise Cables for both the MK-48 ADCAP & MK-54 Lightweight Programs
- Produced the Warhead Electrical Sensor cables on the MK-48 ADCAP Program
- Manufactured "test set" cables for each torpedo program of internal record
- Owns and maintain tooling for many legacy and current torpedo programs
- Was designated a fleet repair depot for torpedo cable assemblies by the U.S. Navy
- Produced every "TYPE 1 cable" designation on the MK-48 ADCAP
- Manufactured every MK-50 cable assembly designation, from Guidance & Control to Afterbody
- Manufactured every cable assembly designation on the MK-54 Torpedo System

NAVAL PROGRAM EXPERIENCE



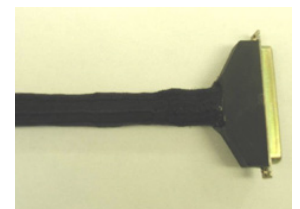
- TB-16 & TB-29 Sonar Arrays
- CANTASS Towed Array Sonar
- AN/BSY-1 Sonar Systems
- MK-48 ADCAP Torpedo
- MK-46 Lightweight Torpedo
- MK-50 Lightweight Torpedo
- MK-54 Lightweight Torpedo
- MK-46 Fire Control
- Trident II Missile System
- CBASS Sonar System



MK-48 ADCAP (ADVANCED CAPABILITY) MODS PROGRAM ASSEMBLIES



MPS	Main Harness Assembly
W1	Cable Assembly, Special Purpose, Electrical-Receiver to Forward Card Box
W1	Cable Assembly, Special Purpose, Electrical-Receiver to Guidance Control Box (ICD)
W8	Cable Assembly, Receiver
W9	Cable Assembly, Special Purpose, Electrical
W14	Cable Assembly, Special Purpose, Electrical
W15	Cable Assembly, Special Purpose, Electrical
W16	Cable Assembly, Special Purpose, Electrical
W9(ICD)	Cable Assembly, Special Purpose, Electrical
W15(ICD)	Cable Assembly, Special Purpose, Electrical
A2W12E1	Cable Assembly, -5V Power
A2W13E1	Cable Assembly, -5V Power
A2W12E1	Cable Assembly, -5V Power(ICD)
A2W13E1	Cable Assembly, -5V Power(ICD)



MK-48 ADCAP TORPEDO PROGRAM



2W6	Cable Assembly, Sensor	P2	Harness Assembly, Transducers
2W4	Cable Assembly, Source	5W15	Retention Assembly
2W5	Cable Assembly, Source	W3	Cable Assembly, Special Purpose, Electrical - Receiver to Forward Card Box
W4	Cable Assembly, Power, Transmitter	W4	Cable Assembly, Special Purpose, Electrical - Receiver to Forward Card Box
W3	Cable Assembly, Power Tuning Box -	W5	Cable Assembly, Special Purpose Electrical - Transmitter to Forward Card Box
W1	Cable Assembly, Power, Inertial Measuring Unit (IMU)	W6	Cable Assembly, Special Purpose Electrical - Transmitter to Forward Card Box
W7	Receiver Power Cable	W7	Cable Assembly, Exploder
W2	Cable Assembly, Power Electrical	W9	Cable Assembly, Special Purpose, Electrical-Preamplifier
W1	Cable Assembly, Special Purpose, Electrical - Receiver to Forward Card Box	W10	Cable Assembly, Special Purpose, Electrical-Preamplifier
W2	Cable Assembly, Special Purpose, Electrical - Receiver to Forward Card Box	W11	Lead, Electrical
P1/P2	Cable Assembly, Card Box to Card Box	A2J2-W1	Harness Assembly, Electrical - High Voltage
W8	Cable Assembly, Power Distribution-Receiver	A2J3-W2	Harness Assembly, Electrical - High Voltage
203W9	Cable Assembly, Special Purpose, Electrical	W7	Cable Assembly, Special Purpose, Electrical-Card Box to Card Box
203W3	Cable Assembly, Special Purpose, Electrical	W8	Cable Assembly, Special Purpose, Electrical-Card Box to Card Box
203W1	Cable Assembly, Special Purpose, Electrical	W22	Cable Assembly, Special Purpose, Electrical-Card Box to Card Box
W1	Cable Assembly, Special Purpose, Electrical		
W2	Cable Assembly, Special Purpose, Electrical		
W4	Cable Assembly, Special Purpose, Electrical		
W5	Cable Assembly, Special Purpose, Electrical		
W6	Cable Assembly, Special Purpose, Electrical		
W7	Cable Assembly, Special Purpose, Electrical		
W8	Cable Assembly, Special Purpose, Electrical		
W9	Cable Assembly, Special Purpose, Electrical		
W10	Cable Assembly, Special Purpose, Electrical		
W11	Cable Assembly, Special Purpose, Electrical		
W12	Cable Assembly, Special Purpose, Electrical		
A2W10	Cable Assembly, Depth Sensor		



MK-48 ADCAP FLEET EXERCISE SECTION ASSEMBLIES



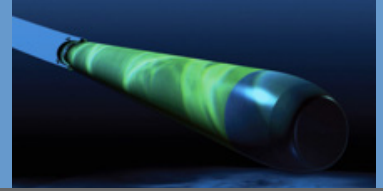
A5	Plug, Shorting, Scuttle
A15	Leak Detector Assembly
201W3	Wire Harness Assembly, Power
203W1	Cable Assembly, Transmitter Power
203W3	Cable Assembly, G&C to A/B
203W9	Cable Assembly, WAS/WHAM Network
201W1J1	Switch Assembly, Scuttle



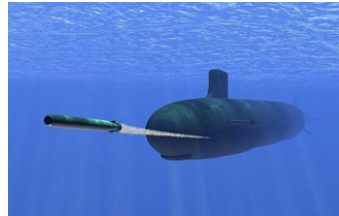
MK-48 W.E.S. PROGRAM ASSEMBLIES (WARHEAD ELECTRICAL SENSOR)

W101	Cable Assembly, Electrical
W103	Cable Assembly, Electrical-Power Supply Module No.3
W104	Cable Assembly, Electrical-AWES Transmitter
W105	Cable Assembly, Electrical-Prime Power
W106	Cable Assembly, Electrical-Prime Power, W106, W107, W108
W109	Cable Assembly, Power Supply No.2 to Junction Board
W110	Cable Assembly, Electrical-BWES Transmitter
W111	Harness Assembly
W112	Harness Assembly

MK-48 CBASS (COMMON BROADBAND ADVANCED SONAR SYSTEM) PROGRAM



A1W1	Cable Assembly, Pre-Processor to GCB
A1W7	Cable Assembly, Power, GCB to Pre-Processor
A1W8	Cable Assembly, CCA Interconnect
A1W9	Cable Assembly, Preamp to FWD Receiver
A1W10	Cable Assembly, Preamp to AFT Receiver
A1W14	Cable Assembly, Power/Signal
A2W11	Cable Assembly, EMI
W1	Cable Assembly, Power, Inertial Measuring Unit
W9	Cable Assembly, Special Purpose, Electrical



MK-50 MOD



A2A6J19	Wiring Harness, Power Conditioner	A5A2	Plug Assembly, Safe EED
A2A6P16	Wiring Harness, Power Conditioner	A5W2	Cable Assembly, Signal C&C
A2A6P17	Wiring Harness, Baseplate	A5W3	Cable Assembly, Oxidant Tank
A2A6P18	Wiring Harness, Power Conditioner	A5W4	Connector Assembly, Sonar Blind mate
A2A6X4	Wiring Harness, Power Conditioner	A5W5	Cable Assembly, Sonar Alternator
A2A6X3	Wiring Harness, Baseplate	A5W7	Cable Assembly, Bulkhead/Tailcone
A2W1	Cable Assembly	A5W8	Cable Assembly, Electrical, Special Purpose
A2W2	Wiring Harness Assembly	A5W9	Cable Assembly, Branched
A4W1	Cable Assembly, Power Converter/Sonar/Power Plant Controller	Lanyard	Plug Assembly, Boss, Start
A4W2	Cable Assembly, Power Converter/Alternator	-001	Wire Assembly
A4W3	Cable Assembly, Power Converter/Current Sense	-002	Wire Assembly

MK-54 LHT PROGRAM ASSEMBLIES



PLUG	Plug, Shorting, Battery
A6W1	Cable Assembly-CGA
A6W2	Cable Assembly, Exploder Switch
W4	Cable Assembly, Nose
W5	Cable Assembly, DSA
W6	Cable Assembly, Fuel Tank
W7	Cable Assembly, Afterbody
W8	Cable Assembly, Alternator
W9	Adaptor Assembly, LSA Cable
W10	Plug, Shorting

W11	Cable Assembly, Safe/Arm
A6W1	Cable Assembly, CGA



W6 - Cable Assembly, Fuel Tank

MK-54 MOD 0 - 'MAKO' FULL RATE PRODUCTION ASSEMBLIES



P601	Shell, Plug, Modified
KNUCKLE	Housing, Cable Connector-
W9-ARM	Housing, Arm
Plug	Cap, Disarm
A6W2	Cable Assembly, Exploder Switch
W4	Cable Assembly, Nose
W5	Cable Assembly, DSA
W6	Cable Assembly, Fuel Tank
W7	Cable Assembly, Afterbody
W8	Cable Assembly, Alternator
W9	Adaptor Assembly, LSA Cable
W10	Plug, Shorting
W11	Cable Assembly, Safe/Arm



W4 - Cable Assembly, Nose



W5 - Cable Assembly, DSA

MK-54 LRIP & PROGRAM DEVELOPMENT AND SUPPORT ASSEMBLIES



W101	Cable Assembly, LITS
W103	Cable Assembly, LITS
W104	Cable Assembly, LITS
W107	Cable Assembly, LITS
W110	Cable Assembly, LITS
W111	Cable Assembly, LITS
W112	Cable Assembly, LITS
W114	Cable Assembly, LITS
W115	Cable Assembly, LITS
W117	Cable Assembly, LITS
W120	Cable Assembly, LITS
W124	Cable Assembly, LITS
W131	Cable Assembly, LITS
W139	Cable Assembly, LITS
A2A6J19	Wiring Harness - Power Conditioner
A3A9W1	Cable Assembly, Scuttle Battery
A6W2	Cable Assembly, Exploder Switch
A6W5	Cable Assembly, DSA
W1	Cable, Autohata
W2	Cable, Autohata
W3	Cable, Autohata
W4	Cable, Autohata
W5	Cable, Autohata
W6	Cable, Autohata
W7	Cable, Autohata
SCUTTLE	Cable Assembly, Battery
W4	Cable Assembly, Nose
W6	Cable Assembly
W7	Cable Assembly, Afterbody
W9	Adaptor Assembly, LSA
W11	Cable Assembly, Safe/Arm



W7 - Cable Assembly, After Body



W8 - Cable Assembly, Alternator



W11 - Cable Assembly, Safe/Arm