

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

This document is intended for use by personnel that have completed an approved training course, successfully passed the final examinations, is in possession or is able to produce a valid qualification certificate issued by an approved training facility. This document provides procedures and instructions that, along with generally accepted industry practices must be fully complied with for the safe and reliable construction of joints.

Section	Issue	Title	Date	Level of Change	Details
000	18	Safety Health and Environmental Responsibilities <i>UJC</i>	Sep-24		
001	33 33 1	An Introduction to the Universal Joint and Coupling Addendum 1- UJ/UC Component Kit List Addendum 2 - UJ/UC Tools and Equipment List <i>UJC</i>	Mar-24 Sep-24 Sep-24		
002	39	STC NL Cable Preparation <i>Global Marine</i>	May-14		
003		Withdrawn			
003/1	27	SubCom SL21E Cable Core Preparation (Copper & PEEK Seal) <i>Global Marine</i>	Apr-12		
003/2	27	SubCom SL17L, SL17-A1 & SL17E Cable Core Preparation <i>SubCom</i>	Jun-24		
003/3	26	SubCom SL21L Cable Core Preparation (PEEK Seal) <i>SubCom</i>	Jun-24		
003/4	1	Fiber Routing Guidelines for High Fiber Count SL Cables (>24 fibers) <i>SubCom</i>	May-23		
004	43	Alcatel (Calais) S560 Cable Preparation <i>Global Marine</i>	Feb-14		
004/1		Withdrawn			
005	18	Universal Coupling Assembly Procedures for AT&T Branching Repeater (Trunk End) <i>SubCom</i>	Nov-23		
006	28	Assembly of the Universal Joint Housing (KIT09001) <i>Global Marine</i>	Sep-12		
006/1	64	Assembly of the Universal Joint Housing (KIT09002/KITH9002) for cables & couplings <i>Global Marine</i>	Sep-24		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
006/2	3	Assembly of the Universal Joint Housing (KIT09002/KITH9002) for Attenuators, Filters & Bridges <i>Global Marine</i>	Jun-21		
006/3	6	Assembly of the ASN Fiber Soft Seal - CSF2 Fibers <i>ASN</i>	Feb-22		
006/4	1	Assembly of the F-ATT for NEC Universal Design PSBU (OCC-SC370 having 32 fibers) <i>KCS</i>	May-19		
006/5	2	Assembly of the Universal Joint Housing for NEC Filter Deployment Kit 3 <i>KCS</i>	Mar-21		
006/6	2	Assembly of the Universal Joint Housing When Using KITH9002 with ASN Attenuators (from 26 to 40) <i>ASN</i>	Nov-24	Minor	Increased the number of attenuators
006/7	2	Assembly of the Universal Joint Housing using KIT294AA for NEC Filter Deployment Kit 4 <i>KCS</i>	Sep-23		
006/8	2	Assembly of the Universal Joint Housing using KIT295AA for NEC Filter Deployment Kit 5 <i>KCS</i>	Sep-23		
006/9	1	Assembly of the Universal Joint Housing using KIT296AA for TFF Adapters <i>KCS</i>	Jun-23		
006/10	1	Assembly of the Universal Joint Housing using KITH9002 with ASN Micro-molded Attenuators (up to 48) <i>ASN</i>	Dec-24	New	New Document
006/11	1	Assembly of the Universal Joint Housing using KIT700AA NEC Filter Deployment Kit 6 <i>KCS</i>	Oct-24	New	New Document
006/12	1	Assembly of the Universal Joint Housing using KIT701AA NEC FI/FO Deployment Kit 7 for LFES <i>KCS</i>	Oct-24	New	New Document
007		Withdrawn			
008		Withdrawn			

Dates in BOLD TYPE indicate new issue

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
009		Withdrawn			
010	16	ASN Screen Termination using Heatshrink Protection, with or without Sea Connection in the presence of H2S or not. <i>ASN</i>	Aug-14		
011	60	Examination of Polyethylene Joints and Couplings (Powered Systems) <i>Global Marine</i>	Mar-24		
012	12	Universal Coupling Assembly Procedures for AT&T SL Repeater (Armorless Cables) <i>SubCom</i>	Apr-19		
013	43	Assembly of the Universal Joint Protection Components <i>Global Marine</i>	Mar-24		
013/1	2	Assembly of the Universal Joint Protection Components for the SubCom SL17 H2S Protected SPA cables <i>SubCom</i>	Apr-19		
014		Withdrawn			
015	13	Couplings SL to Cable to SL Repeater Couplings Olive Fitting Mold/Manifold <i>SubCom</i>	Jul-20		
016		Withdrawn			
017	15	SubCom SL SPA and FPB Screen Termination <i>SubCom</i>	Apr-19		
017/1	10	SubCom SPA Heatshrink Screen Termination <i>SubCom</i>	Nov-23		
018	7	Looped Fiber End Seal Assembly (KIT09001) <i>Global Marine</i>	Sep-08		
018/1	9	Looped Fiber End Seal Assembly (KIT09002) <i>Global Marine</i>	May-23		
019		Withdrawn			
020	23	Armored Cable Preparation and Assembly for Joints <i>Global Marine</i>	Mar-23		
020/1	38	Rock Armor Cable Preparation <i>Global Marine</i>	Mar-23		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
020/2	77	Double Armor Cable Preparation and OS DA Cutback Techniques <i>Global Marine</i>	Mar-24		
020/3	67	Single Armor Cable Preparation <i>Global Marine</i>	Jun-24		
020/4	72	Outer Armor Joint Protection Component Assembly <i>Global Marine</i>	Jun-24		
020/5	8	Outer Armor Joint Protection Component Assembly for NSW Minisub 16C <i>Global Marine</i>	Sep-08		
020/6	10	GPT F7 Cable Outer Armored Joint Component Assembly <i>Global Marine</i>	Sep-08		
020/7	9	Ericsson GASLMLTV Cable Outer Armored Joint Component Assembly <i>Global Marine</i>	Dec-18		
020/8	8	OS LAP SAH and SAM Outer Armored Joint Component Assembly <i>Global Marine</i>	Feb-08		
020/9	7	Outer Armored Joint Component Assembly for SubCom SL17 and SL21 GP Armored Cables <i>SubCom</i>	Mar-08		
020/10	8	Cable Transitions for SubCom Armored Cables <i>SubCom</i>	Oct-23		
020/11	2	Cable Preparation & Outer Protection for SubCom Aramid Cables <i>SubCom</i>	Mar-08		
020/12	6	ASN OALC-4 SPDA Reinstatement <i>Global Marine</i>	Jun-21		
020/13	1	Global Marine Internal Procedure			
020/14	1	Cable Transitions for SubCom Spare Tailed Repeaters and Spare Tailed Gain Equalization Joints. <i>SubCom</i>	Oct-07		
020/15	3	Cable Transitions for ASN Spare Tailed Submerged Equipment. <i>ASN</i>	Feb-11		
020/16	3	Cable Transitions for TE SubCom SL21L Armored Cables <i>SubCom</i>	Jun-12		

Dates in **BOLD TYPE** indicate new issue

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
020/17	1	SubCom SL17 H2S Protected Cable Preparation <i>SubCom</i>	Jun-08		
020/18	1	Outer Armored Joint Component Assembly for SubCom SL17 H2S Protected Armored Cables <i>SubCom</i>	Jun-08		
020/19	1	Cable Transitions for SubCom SL21L GP Armor Spare Tailed Repeaters and Spare Tailed Gain Equalization <i>SubCom</i>	Jul-17		
020/20		Reserved for SubCom <i>SubCom</i>			
021	11	DSC P2, DSC P1 16.8mm Cable Preparation <i>Global Marine</i>	May-13		
022		Withdrawn			
023	3	Universal Jointing SL Pigtail Re-Termination <i>SubCom</i>	Dec-23		
024	6	Universal Coupling Assembly Procedures for AT&T SL Repeater (Armored Cables) <i>SubCom</i>	Dec-23		
025	11 50 8 2 1	Fiber Splicing Procedure Addendum 1 Addendum 2 Addendum 3 Addendum 4 <i>KCS</i>	Dec-06 Sep-08 Feb-02 Apr-02 Nov-99		
026	27	OS Cable Preparation <i>Global Marine</i>	Sep-20		
026/1	8	OCC 12 Fiber OS Cable End Preparation <i>Global Marine</i>	Sep-20		
026/2	8	OS LAP SAH and SAM Cable End Preparation <i>Global Marine</i>	Nov-09		
026/3	38	OS, OS TUBE & OCC SC-100 Cable Preparation using Advanced Hydrogen Management Techniques <i>Global Marine</i>	Sep-20		

Dates in BOLD TYPE indicate new issue

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
027	3	Screen Termination Procedures (TPC4 Only) <i>Global Marine</i>	Sep-99		
028	8	Screen Termination Procedures (APC, APCN, TPC5, RJK) <i>Global Marine</i>	Jan-03		
029		Withdrawn			
030	15	OS HT Cable Preparation <i>Global Marine</i>	Sep-20		
031	16	Elastomer Removal Procedure <i>SubCom</i>	Aug-10		
031/1	2	UV Cured UFS for SubCom SL21 Cable <i>SubCom</i>	Oct-23		
032	16	ASN and Pirelli S280 Cable Preparation <i>Global Marine</i>	May-14		
033	5	Universal Coupling Polyethene Overmolding Procedure <i>SubCom</i>	Dec-23		
034	58	Shipboard Automated Molding System (SAMS - CIMAC) for Screw Fitting Manifold <i>Global Marine</i>	Jul-24		
034-062 A1	24	Appendix 1: Cable Molding Data for SAMS & C-SAMS <i>Global Marine & SubCom</i>	Mar-24		
035	8	Universal Coupling Assembly Procedures for OS Repeater (Armorless Cables) <i>SubCom</i>	Mar-07		
036	9	Universal Coupling Polyethylene Overmolding Procedure <i>SubCom</i>	Jul-09		
037		Withdrawn			
038		Withdrawn			
039	2	OS LAP Layer reinstatement for the UC Overmold <i>SubCom</i>	Dec-23		
040		Withdrawn			
041	17	GPT F7 Cable Preparation <i>Global Marine</i>	May-16		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
042	4	Universal Jointing Polyethylene Overmolding Procedure NL (Non-EVA) Cable to SL Repeater Couplings SL Cable to SL Repeater Couplings Screw Fitting Mold/Manifold <i>SubCom</i>	Aug-03		
043	5	Universal Coupling Assembly Procedures for OS Repeater (Armored Cable) <i>SubCom</i>	Mar-07		
044	29	Examination of Polyethylene Joints and Couplings (Unpowered Systems) <i>Global Marine</i>	Sep-23		
045	13	SubCom SL21E Cable Core Preparation (Advanced Hydrogen Management) <i>Global Marine</i>	May-12		
046	1	Universal Coupling Assembly Procedure for the ASN Fiberglass Repeater (Armorless Cables) <i>SubCom</i>	Sep-00		
047	1	Universal Coupling Assembly Procedure for the ASN Fiberglass Housing (FGH) Repeater (Armored Cables) <i>SubCom</i>	Sep-00		
048	4	Universal Coupling Assembly Procedure for NL repeater (Armored Cable) <i>SubCom</i>	Sep-00		
049	4	Universal Coupling assembly Procedures for NL Repeater (Armorless Cable) <i>SubCom</i>	Sep-00		
050	3	Universal Coupling Assembly Procedures for SL Branching Repeater Armored Cable (Sea Ground End) <i>SubCom</i>	Mar-18		
051	25	Heatshrink Molding Procedure <i>Global Marine</i>	Sep-23		
052	13	NSW Minisub 16C Cable End Preparation <i>Global Marine</i>	Sep-20		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
053	10	Ericsson GASLMLTV Cable Preparation <i>Global Marine</i>	Dec-18		
054	34	ASN OALC-4 Cable Preparation <i>Global Marine</i>	Jun-24		
055	21	Pirelli 14mm and 18.5 mm Cable Preparation <i>Global Marine</i>	Apr-12		
056	9	OS SS Cable Preparation <i>Global Marine</i>	Sep-20		
057	1	OSRL Cable Preparation <i>Global Marine</i>	Jan-00		
058	20	ASN OALC-6 Cable Preparation <i>Global Marine</i>	Dec-19		
059	6	LW /LWS Buffer Closing using KIT10012 <i>Global Marine</i>	Nov-10		
060	23	ASN URC3 Cable Preparation <i>Global Marine</i>	Sep-19		
061	1	Operating Procedure for the 20 Ton Ferrule Press (BD011L01) <i>Global Marine</i>	Feb-00		
062	33	C-SAMS Mold Control Unit Overmolding Procedure <i>SubCom</i>	Jul-24		
062-1	9	Computer Shipboard Automated Molding System using Ethernet (C SAMS-e) Operating Procedure <i>SubCom</i>	Jul-24		
063	17	ASN OALC-7 Cable Preparation <i>Global Marine</i>	Jul-24		
064		Withdrawn			
065	14	Fiber Splicing Procedure using Fusion Splicer UJS-S100 & UJS-S100R <i>KCS</i>	Dec-18		
065_ 065/1	57	Addendum 1	Dec-24	Minor	New combinations added
	20	Addendum 2 <i>*(For UJC Use Only)</i>	Sep-24		
	45	Addendum 3 <i>KCS</i>	Dec-24	Minor	New combinations added

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
065/1	4	Fiber Splicing Procedure using Fusion Splicer UJS-S200 <i>KCS</i>	Jun-24		
066	2	Testing Advice to be Carried Out During Jointing <i>Global Marine</i>	Aug-18		
067	8	URC-1 (96 & 192 Fibers) <i>Global Marine</i>	May-22		
068	3	AKN-G6-10/125 Vyra-0403LV (Aden - Djibouti) Cable Preparation <i>Global Marine</i>	Nov-06		
069	8	SubCom SL125 Cable Preparation <i>Global Marine</i>	Jan-16		
070	7	ASN OALC5 & URC2 Type 11 Cable Preparation <i>ASN</i>	Feb-19		
071	2	ASN URC4 Cable Preparation for Non-Molded Joints <i>ASN</i>	Jan-16		
072	1	ASN URC4 Cable Preparation for Molded Joints <i>ASN</i>	Mar-12		
073	10	NSW Minisub 36/48 Cable Preparation <i>Global Marine</i>	Jun-21		
074	6	Nexans ROC-1 Cable Preparation <i>Global Marine</i>	Aug-10		
075	31	OCC-SC300, SC350 & SC370 Cable Preparation <i>Global Marine</i>	Sep-24	Minor	Title Change, note added and pictures improved
075/1	4	OCC-SC300, SC350, SC370 & SC380 Cable Preparation using KIT186AA <i>KCS</i>	Dec-24	Major	Now covers more cable types if using KIT186AA
076	14	NSW MINISUB R (0.6) 15 & 17 (For Ferrule MD003D01) Cable Preparation <i>Global Marine</i>	Mar-19		
076/1	4	NSW MINISUB R (0.6) 15 & 17 (For ferrule GMS691D) Cable Preparation <i>Global Marine</i>	Dec-19		
076/2	6	NSW MINISUB R (1.5) & (1.8) 17 Cable Preparation <i>Global Marine</i>	Mar-21		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
076/3	6	NSW MINISUB R (0.6) 17 deep water deployment specification <i>Global Marine</i>	Dec-23		
077	9	Ericsson GJMLTV & GJMMLTV Cable Preparation <i>Global Marine</i>	Sep-21		
077/1	3	Ericsson GJLTTM /GJMLTV 96 to 192 Fibers Cable Preparation <i>Global Marine</i>	Mar-22		
078	6	ZTT SOFC S17 Cable Preparation <i>Global Marine</i>	Jan-16		
079	2	SubCom Extruder & Manifold Cleaning <i>SubCom</i>	May-12		
080	5	Nexans ROC-2 Cable Preparation <i>Global Marine</i>	Sep-16		
081	17	OCC-SC500 Series Cable Preparation <i>KCS</i>	Sep-24	Minor	Title Change, note added and pictures improved
081/1	1	OCC-SC500 Series Cable Preparation with 200µm fiber or using KIT191AA <i>KCS</i>	Dec-24	Minor	Title Change, and revised note
082		C-SAMS with Pressure Control Operating Procedure <i>SubCom</i>	On-Hold		
083	5	NSW MINISUB SAL 36 & SAL R 36 Cable Preparation <i>Global Marine</i>	Jul-24		
084	10	NSW MINISUB [8.0] 144/192/288 Cable Preparation <i>Global Marine</i>	Oct-23		
085	8	Nexans URC-1 (5.6mm) Cable Preparation <i>Global Marine</i>	Dec-21		
086	1	C-SAMS Extruder Pressure Testing <i>SubCom</i>	May-12		
087	3	CCSI RI-Sub XP Cable Preparation <i>Global Marine</i>	Jan-16		
088	17	Digital X-ray Radiography (powered) <i>Global Marine</i>	Mar-24		
089	13	Digital X-ray Radiography (un-powered) <i>Global Marine</i>	Sep-23		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
090	8	ASN DSC P3 Cable Preparation <i>Global Marine</i>	Oct-18		
091	5	ASN/Nexans URC-1 (3.7mm) Cable Preparation <i>Global Marine</i>	May-16		
092	8	Hengtong HORC-1 Cable Preparation <i>Global Marine</i>	Mar-24		
093	4	Nexans ROC-2L Cable Preparation <i>Global Marine</i>	Aug-23		
094	3	TongGuang GHR-18 Cable Preparation <i>Global Marine</i>	Feb-23		
095	5	FiberHome FHOC-R Cable Preparation <i>Global Marine</i>	Jun-24		
096	4	Nexans ROC-2H Cable Preparation <i>Global Marine</i>	Aug-23		
097	9	Hengtong HORC-2 Cable Preparation <i>Global Marine</i>	Jul-24		
098	3	AKN (Guaymas-Santa Rosalia) Cable Preparation <i>Global Marine</i>	Mar-23		
099	1	TG GH (Guaymas-Santa Rosalia) Cable Preparation <i>Global Marine</i>	Jun-21		
100	1	Fiber Ribbonizing Fiber Ferrule Installation and Ferrule Body Assembly <i>SubCom</i>	Jun-24		
101	5	OCC SC630 Series Cable Preparation <i>KCS</i>	Sep-24	Minor	Title Change, note added and pictures improved
101/1	2	OCC SC630 Series Cable Preparation with 200µm fiber or using KIT192AA <i>KCS</i>	Dec-24	Minor	Title Change, and revised note
102	1	Baosheng BYROC-1 Cable Preparation <i>Global Marine</i>	Nov-23		
103	1	ZTT SOFC-21 Cable Preparation <i>Global Marine</i>	Mar-24		
104	2	Hengtong HORC-3 Cable Preparation <i>Global Marine</i>	Jun-24		

UNIVERSAL JOINT CONSTRUCTION MANUAL - INDEX

Issue 137

December 2024

Section	Issue	Title	Date	Level of Change	Details
105	1	FiberHome FHOCR-48 Cable Preparation <i>Global Marine</i>	Jun-23		
106	5	SubCom SL17L-SDM Cable Preparation <i>SubCom</i>	Jun-24		
108	1	Fiber Splicing Procedure using Multi-core Fusion Splicer <i>KCS</i>	Sep-24		
111	2	Operating Manual for SubCom Fiber Color Scanner for SubCom (SL) High Fiber Count Cables <i>SubCom</i>	Jan-24		