

Composite Repair Kit

Super Composite Repair Kit

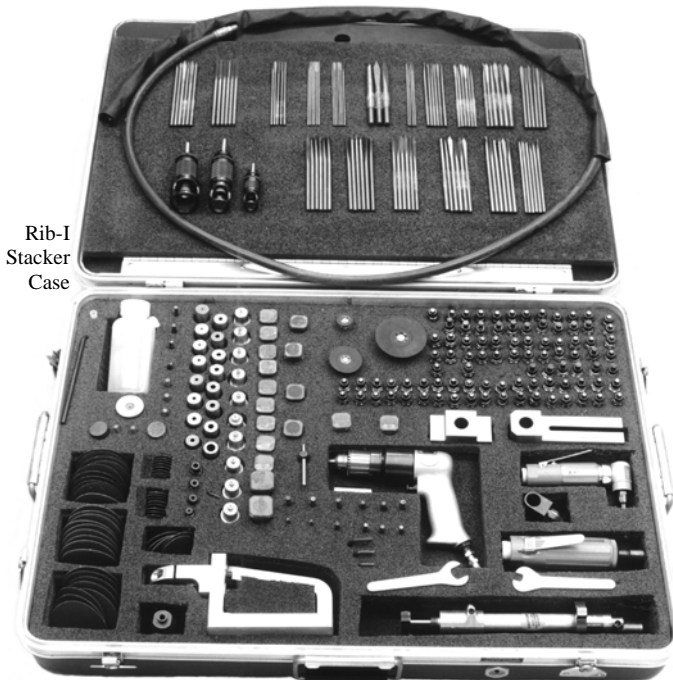
U. S. NAVY TYPE COMPOSITE MATERIALS REPAIR KIT

UTK-218001-F18 KIT

Ref: UCC-200018-FA-18

Airframes such as the F18-757-777, the MD 90 and many others contain numerous components and assemblies fabricated from Aramid, Graphite Epoxy, Honeycomb Cores and other composite materials.

UNITED's Super Composite Repair Kit provides the necessary special tools for drilling, countersinking, routing and repairing bonded components. Some of the special tools will remove surface finish, route damaged skins, install trimming, bonded patches and fasteners. All the required tools are shown below (The big 'C' below stands for Composite!).



CASE UCC-218980 is 37-1/4" L x 27-1/4" W x 7" H outside.

CONTENTS

1	UCC-218101,102	ALIGN-A-DRILL WITH UNI-A-CHECK
10	UCC-218970	ALIGNMENT PINS, STAINLESS
1	UCC-218980	CASE TRANSIT MIL-C-4150, TYPE II
4	UCC-218966	CLAMP BUSHINGS, STAINLESS
1	UCC-218803-301	COOLANT ADAPTER, 3/4 I.D.
1	UCC-218987	COOLANT BOTTLE W/LID
1	UCC-218402	CORE CUTTER, HONEYCOMB
1	UCC-218984	COUNTERBORE, .671 DIA.
11	UCC-218982-465-1	CUTTERS, COUNTERSINK
2	UCC-218965-1	DRILL GUIDES, STAINLESS STEEL
1	UCC-218247	DRILL MOTOR
4	UCC-218986-10	DRILL STOPS
96	UCC-218193	DRILLS, CARBIDE
16	UCC-218803-.0980	EXIT END COOLANT BUSHINGS
72	UCC-218250-4	FASTENERS
1	UCC-218981	FOAM INSERT SET, MIL-P-26514
3	UCC-218016	HEX KEYS, 3/16 SHORT ARM
22	UCC-218983-2	INSERTS, COUNTERSINK-CARBIDE
3	UCC-218330-S	MICROSTOP GAUGES
4	UCC-218787	OVERHOSE ASSEMBLIES
6	UCC-218903	PILOTED REAMERS, CARBIDE
1	UCC-218985	PILOTED COUNTERBORE, .468 DIA
10	UCC-218052	ROTARY FILE BITS, CARBIDE
1	UCC-218595-10E	ROUTER BIT, DIAMOND COATED
1	UCC-218407	ROUTER COLLAR GUIDE
1	UCC-218979	ROUTER HOLDER, ADJUSTABLE
2	UCC-218994	ROUTER MOTOR
1	UCC-218180	ROUTER NOSEPIECE ATTACHMENT
58	UCC-218210	SANDING DISCS
11	UCC-218980-1	TEMPLATE CASE, ALUMINUM
12	UCC-218960-1/8	TWIST DRILL, CARBIDE
1	UCC-218999	VACUUM ATTACHMENT
1	UCC-218003	EXTRACTOR TOOL



Pneumatic Air Drill Kit

Pneumatic Air Drill Kit

UDB-916A11388 KIT UNITED HOLE TRANSFER KIT

CONTENTS

1	UDB-711388-1	Offset Motor
1	UDB-11388-2	Straight Motor
8	UDB-11388-3 thru 11	Piloted Carbide Drills
2	UDB-11388-12-13	Piloted Carbide Reamers
1	UDB-916A11388-13	Rib-I Case, Foam Inserts

This Carbide Cutting Tool Kit contains straight and offset high speed Pneumatic Air Drill Motors, eight encased Piloted Carbide Drills and two encased Carbide Reamers. Shockproof Rib-I Stack Case UDB-916A11388-13 is 18" H x 13" W x 5" H with foam inserts.



Rib-I
Stacker
Case

UDB-916A11388 KIT

CARBIDE

THE BIT THAT DOESN'T WEAR OUT!



Call or Fax UNITED for further details.

PNEUMATIC AIR DRILL — 'L' HEAD HIGH SPEED
DRILLS, PILOTED — CARBIDE

PNEUMATIC AIR DRILL — 'F' HEAD HIGH SPEED
REAMERS, PILOTED — CARBIDE

**Roughometer Kit for
Quality Control of Holes**

Roughometer Kit For Inspection of Hole Conditions

UTK-268002-24 KIT

UNITED's Roughometer Equipment Kit contains the necessary tools for measuring the surface finishes of flat, inside and outside diameters. The Roughometer inspects and checks the quality finish of the hole.

THIS QUALITY CONTROL KIT GIVES YOU THE ABILITY TO MEASURE THE ROUGHNESS OF I.D. AND O.D. SURFACES OF NEWLY DRILLED TAPER LOCK AND STRAIGHT HOLES. THE ROUGHOMETER ALSO INSPECTS AND MEASURES FLAT SURFACES BEFORE ACTUAL DRILLING OF AIRCRAFT OR WORKPIECE.



Rib-I
Stacker
Case

RIB-I STACKER CASE UCC-268002-324 is
32" L x 22" W x 16" H inside

ROUGHOMETER

AUTODRIVE &
PIVOT COUPLER

PICKUP
EXTENSION

REVERSAL
BAR

DRIVE BRACKETS

ADAPTER, STYLUS
EXTENSION & PICKUP

KIT CONTENTS

1	UCC-268002-312	ROUGHOMETER & PICKUP
1	UCC-268002-313	CALIBRATION PATCH
1	UCC-268002-314	SMALL HAND HELD STYLUS
1	UCC-268002-315	LARGE HAND HELD STYLUS
1	UCC-268002-316	AUTODRIVE & PIVOT COUPLER
1	UCC-268002-317	ADAPTER
1	UCC-268002-318	STYLUS EXTENSION
1	UCC-268002-319	SPECIAL PICKUP
1	UCC-268002-320	8 INCH REVERSAL BAR & CLAMP
1	UCC-268002-321	10 INCH PICKUP EXTENSION
1	UCC-268002-322	LATERAL DRIVE BRACKET
1	UCC-268002-323	CARRYING CASE
1	UCC-268002-324	RIB 'I' STACK CASE, FOAM

For Precision Analysis of your Holes!

Protrusion Gauges Kit

Protrusion Gauges for
7/16 Taperlock

UTK-755885DM-7 KIT METRIC
* UTK-755884 KIT INCH STANDARD

UNITED kits individual Sets of Protrusion Gauges as shown and listed on pages S18 and S19.

These individual size kits are generally checked out of the Inspection Gauge Cribs and used for specific size checks in process or at final line inspection.

They may be re-calibrated by returning them to **UNITED**. Should they be worn, undersized or tapered from nominal, **UNITED** will re-grind, plate and return with new certifications.

The Kit shown was manufactured and ground to metric standards for Deutsch Air Bus, Hamburg, GM. Now available.

Kit Contents

UDB-755885 Metric Multi-gauge Handle
UDB-755885-1-7 Gauge Pin 7/16 Group 1
UDB-755885-2-7 Gauge Pin 7/16 Group 2
UDB-755885-3-7 Gauge Pin 7/16 Group 3
UDB-755885-4-7 Gauge Pin 7/16 Group 4
UDB-755885-CAS RIB 'I' Stack CASE
with Foam Inserts

Call or Fax **UNITED** for further details.

* See Page S18.

UTK-755885DM-7 KIT METRIC
* UTK-755884 KIT INCH STANDARD



Rib-I
Stacker
Case

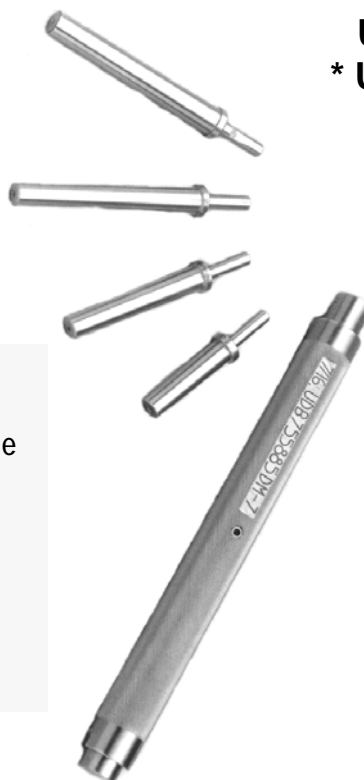
UTK-755885DM-7 KIT METRIC
* UTK-755884 KIT INCH STANDARD

SIMPLE — FAST

The utilization of the 4-way Protrusion Gauge is a simple and rapid method of accurately checking the protrusion of a tapered hole prior to fastener installation.

The Protrusion Gauge shown is designed to inspect the protrusion by simply inserting the gauge insert, an integral part of the gauge assembly, into the part with finger tip pressure. The pin at the top of the gauge will indicate whether or not the fastener is protruding an acceptable amount. Please refer to the Go and No Go illustrations on page S18.

Each gauge will check 20 sizes of Taper Lock bolt holes for TL100 and TL200 fasteners, Groups 1 thru 4 of the specified size. See the Chart on page S7.



Cutting Tool and Gauge Kit - 9/16 TL

Cutting Tools, Gauges and Carbide Kit

UTK-250016F-15 KIT

TAPERLOCK 9/16 TOOL KIT contains all cutting tools, drills, reamers and countersink gauges to Drill, Ream and Finish the 9/16 Taperlock holes. All the required tools for Commercial and Military Standards are included. Twenty tools to complete the job.

UNITED designed this Emergency Kit for spare repair for the F15. Concept by Al Mischaud, McClellan AFB. Technical Direction by *UNITED Experts*. Call or Fax *UNITED* for details.



UTK-250016F-15 KIT

KIT CONTENTS

2	UTLD 20TLM1-1-9	Drill - 9/16" Group 1
1	UTLD 20TLM1-2-9	Drill - 9/16" Group 2
2	UTLR 20TUFF-1-9	Reamer - 9/16" Group 1
2	UTLR 20TUFF-2-9	Reamer - 9/16" Group 2
2	UTLR 2055-2-9	Reamer, Hand - 9/16" Group 1 - 2
1	UDB 755887-9	Protrusion Gauge Handle Assembly
1	UDB 755861-1-9	Gauge Pin, Protrusion - 9/16" Group 1
1	UDB 755861-2-9	Gauge Pin, Protrusion - 9/16" Group 2
1	UDB 756100	Gauge Blueing Pin - 9/16" Group 1-3
1	UTLG 5102A-9	Protrusion Gauge, 100° C'Sink
1	UTLG 5107-3-9XX	Gauge Pin, Protrusion - 9/16" Group 3
1	UDB 755784	Taper Scraper - 9/16" Group 1-3
1	UDB 710300	Knockout Tool, 9/16" Taperlock
1	UTLG 5120-100-1-9	Gauge, 100° C'Sink, 9/16" Group 1
1	UTLG 5120-100-2-9	Gauge, 100° C'Sink, 9/16" Group 2
1	UDB 755770	'T' Handle Taper Scraper
1	UCC 250016F-KDL	Kit Contents Data List
1	UCC 250016F-CAS	RIB 'I' Stack Case Assembly - Blue



Composite Repair Tool Kit

Composite Repair
Kit from UNITED

KIT NUMBER UTK-68D571

For Replacement and
Repairable Damage
of
Bonded Assembly Tooling

ITEM NO.	KIT QTY	UNITED PART NUMBER	ITEM DESCRIPTION
1	1	UTK 68D571	Tool Kit, Composite Repair - 17" L x 10" W x 5-1/2" H
2	1	UCC 68D571-1	Case Assembly, Rib-I Stacking W/UCC Logo - Blue
3	1	UCC 68D571-2017	Template, 301 Stainless 1/2 Hard - 3" x 3" x .060
4	1	UCC 68D571-2019	Template, 301 Stainless 1/2 Hard - 3" x 3" x .060
5	1	UCC 68D571-2021	Template, 301 Stainless 1/2 Hard - 3" x 3" x .060
6	1	UCC 68D571-2023	Template, 301 Stainless 1/2 Hard - 3" x 3" x .060
7	10	UCC CAD402	Twist Drill, Carbide, 2 FLute 1/8"Ø x 2-5/8" OAL, 1-1/4" Flute
8	3	UCC CD301	Core Drill, Diamond, 80/120 Grit, 3/4"Ø x 3" OAL, 1/4" Shk
9	3	UCC CD302	Core Drill, Diamond, 80/120 Grit, 1"Ø x 3" OAL, 1/4" Shk
10	3	UCC CD303	Core Drill, Diamond, 80/120 Grit, 1-1/2"Ø x 3" OAL, 3/8" Shk
11	3	UCC CD304	Core Drill, Diamond, 80/120 Grit, 2"Ø x 3" OAL, 3/8" Shk
12	3	UCC CR701	Router Bit, Carbide, Single End 1/4"Ø x 2-1/2" OAL, 3/4" Cut
13	1	UCC DR201-120	Router Bit, Diamond - 120 Grit, 1/2"Ø x 3" OAL, 1" Cut
14	1	UCC DR201-40	Router Bit, Diamond - 40 Grit, 1/2"Ø x 3" OAL, 1" Cut
15	1	UCC DR201-80	Router Bit, Diamond - 80 Grit, 1/2"Ø x 3" OAL, 1" Cut
16	3	UCC DR202-60/80	Router Bit, Diamond - 60/80 Grit, 1/4"Ø x 3" OAL, 1" Cut
17	3	UCC DR203-60/80	Router Bit, Tapered, Diamond - 60/80 Grit, 1/4"Ø x 3" OAL
18	1	UCC DS601	Dressing Stone, White - 3/4" x 1" x 3" OAL
19	10	UCC MDP601	Mounted Point, Diamond - 120 Grit, 1/8"Ø x 2" OAL, 1/4" Cut
20	1	UCC MW101-120	Mounted Wheel, Diamond - 120 Grit, 1/2"Ø x 2-1/6" OAL, 1/16" Cut
21	1	UCC MW101-40	Mounted Wheel, Diamond - 40 Grit, 1/2"Ø x 2-1/6" OAL, 1/16"
22	1	UCC MW101-80	Mounted Wheel, Diamond - 80 Grit, 1/2"Ø x 2-1/6" OAL, 1/16" Cut
23	1	UCC MW102-120	Mounted Wheel, Diamond - 120 Grit, 1"Ø x 2-1/6" OAL, 1/16" Cut
24	1	UCC MW102-40	Mounted Wheel, Diamond - 40 Grit, 1"Ø x 2-1/6" OAL, 1/16" Cut
25	1	UCC MW102-80	Mounted Wheel, Diamond - 80 Grit, 1"Ø x 2-1/6" OAL, 1/16" Cut
26	1	UCC SDH701	Sanding Disc Holder, 1" - Powerlock
27	10	UCC SD702-120	Sanding Disc, 1" - 120 Grit - Powerlock - Aluminum Oxide
28	10	UCC SD702-240	Sanding Disc, 1" - 240 Grit - Powerlock - Aluminum Oxide
29	10	UCC SD702-60	Sanding Disc, 1" - 60 Grit - Powerlock - Aluminum Oxide



For F4 - 15 and General Repairs

General in service repairable damage
for bonded assemblies includes:

Dents

Voids

Unbonds

Delaminations

Skin Damage only

Skin & Honeycomb Core Damage
All plies not penetrated

Penetration of one Skin and
Honeycomb core

Penetrations of both Skins and
Honeycomb Core

Water Entrapment