

Price: \$80.00

MINI-BEEP

AMPHIBIOUS OFF-ROAD TRUCK

BODY PLANS / KIT ASSEMBLY MANUAL

MBA80-B

**Build it
Your Way
& SAVE!**

NEW...

- * Four Wheel Drive!
- * Steering Wheel!



C. F. Struck Corp. ● Box 307 Cedarburg, WI 53012 ● E-Mail: info@StruckCorp.com
Phone: (262) 377-3300 ● Web: www.Struck-Kit.com

GENUINE
STRUCK-KIT[®]
Div. C.F. Struck Corp.

**GO
ALMOST
ANYWHERE**

WITH A
MINI-BEEP[®]
AMPHIBIOUS ORT[™]



*The MINI-BEEP is
designed for work...
...but after work, it's
just plain FUN!*



DIV. OF C. F. Struck Corp. Manufacturers of Magnatrac® Crawlers
Box 307 Cedarburg, WI 53012 - E-Mail: info@StruckCorp.com - Web: www.Mini-Beep.com



CONGRATULATIONS!

With the *MBA80-B Body Plans & Kit Assembly Manual* you're holding, you have the path to creating the most unique and exciting vehicle to come along in years... the MINI-BEEP Amphibious ORT (Off-Road Truck). The MINI-BEEP is a revolutionary new concept in off-road, amphibious transportation. Though sharing many similarities, it defies comparison to an ATV, UTV or any other off-road wheeled vehicle.

Uniquely styled to resemble a 4/5 scale version of a World War II Jeep®, the MINI-BEEP's body is actually an extremely strong and watertight "unibody". This Body is made from less than 5 sheets of common 4' x 8' x 3/4" exterior grade plywood. Easily cut with a saber saw, it's glued and screwed together to form a *naturally buoyant*, almost indestructible Body. The use of simple hand tools and basic skills makes the MINI-BEEP fun to build and a joy to own!

The "drive train" of the MINI-BEEP is of much tougher construction than its plywood body might indicate. Our parent company has manufactured Compact Crawler tractors for over 40 years... so you know we don't skimp on heavy-duty quality!

The BEEP offers two drive systems. One is a "live" rear axle drive, similar to those used in large "two wheel drive" Dune Buggies! The other is the traditional "full-power" Four Wheel Drive... all four wheels are continually "alive"... all four wheels must totally lose traction for the MINI-BEEP to ever be stopped!

**Build a MINI-BEEP® Yourself... and SAVE!
Use Your Parts... Our KITS... or a little of Both!**

MINI-BEEP® Amphibious ORT...
the ONLY OFF-ROAD VEHICLE YOU BUILD YOURSELF
...YOUR WAY! Here's how to get started!

First, you'll need a PLAN, one with clear drawings, easy to follow step by step Instructions and over 250 photos to show you every construction detail. GOOD NEWS...You already have it in your hands, the *MINI-BEEP Body Plans & Kit Assembly Manual!*

Next, you'll need the Drawings for a sturdy, watertight MINI-BEEP Body. This is the fun part! By following the "Body Construction Drawings" section of this *Body Plans & Assembly Manual*, you can "home-fabricate" all the plywood panels for the complete Body from less than five sheets of your own 4' x 8' x 3/4" plywood ... and SAVE BIG!

OR... If you prefer, you can purchase and assemble our KIT #1000 Plywood Body. It contains 39 precision-cut plywood panels, with guaranteed perfect fit and complete satisfaction!

Lastly, you'll need to determine how you will "power up" your new MINI-BEEP. If you have the experience and interest, you can improvise: Use an old garden tractor engine, a transmission from a discarded snowblower or lawn mower, finish-up with tires from a used trailer or clunker car! Your list of locally available parts (at little or no cost) is endless; the challenge, fun and creativity is limitless!

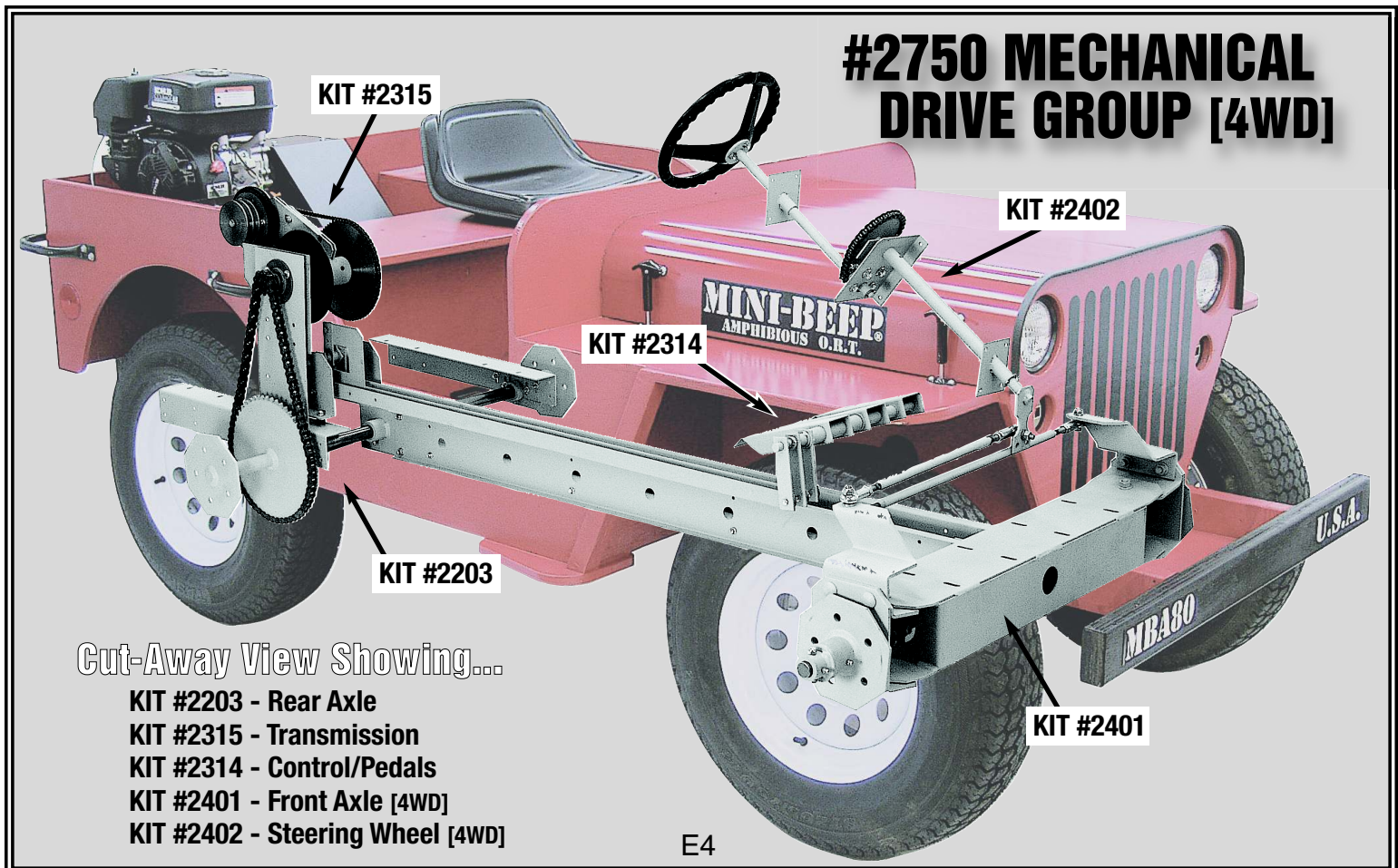
OR... If you prefer, you can purchase and assemble the KITS in our #2500 Mechanical Drive Group [4WD], add the #3500 Hood & Seat Group and #4000 Engine & Tires Group. You'll enjoy "failure proof fit" and quality engineering, as you "power up" your scrappy [4WD] MINI-BEEP ORT.

"Home-Build-It" Your Way... and SAVE!

Most Economical Way: Build your own MINI-BEEP® Plywood Body from *our* Body Construction Drawings and *your* Plywood... "power it" with Mechanical Drive components, Engine, and Tires you find *locally*.

Easier Way: Build your own MINI-BEEP Plywood Body using *our* Body Construction Drawings and *your* Plywood... then "power it" with *our* #2500 Mechanical Drive Group [4WD] KITS. Finish up with Engine, Tires and Seat salvaged from an old garden tractor and a Hood you can "form-up" from sheet metal available from a Home Improvement store. (*Hood drawing and instructions included with Body Construction Drawings*)

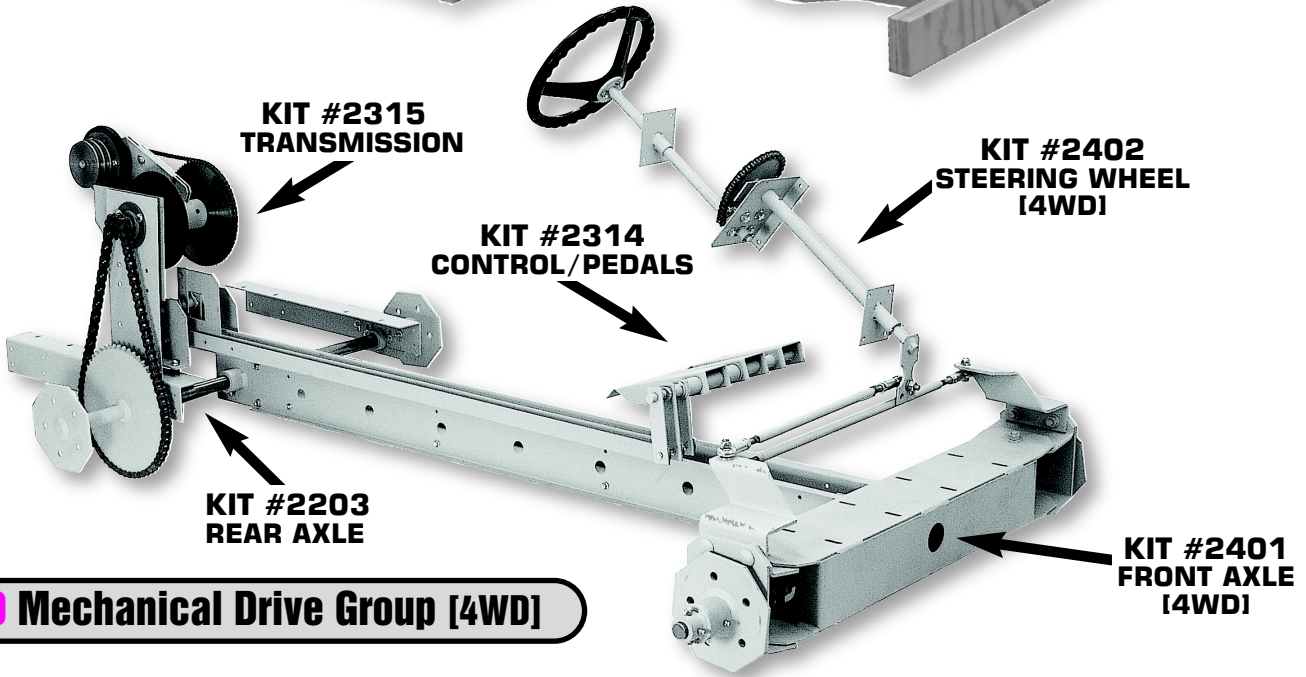
BEST WAY: Build your Plywood Body from our #1000 Plywood Body KIT... then "power it" with our #2500 Mechanical Drive Group [4WD] KITS. Finish with the #3500 Hood & Seat KITS and #4000 Engine & Tires KITS! **THIS WAY** you're building a MINI-BEEP where **all** the parts for a basic MINI-BEEP are included, and every part is guaranteed to fit and run perfectly!





**KIT #1000
PLYWOOD
BODY**

#1000 Plywood Body Group



**KIT #2315
TRANSMISSION**

**KIT #2402
STEERING WHEEL
[4WD]**

**KIT #2314
CONTROL/PEDALS**

**KIT #2203
REAR AXLE**

**KIT #2401
FRONT AXLE
[4WD]**

#2750 Mechanical Drive Group [4WD]



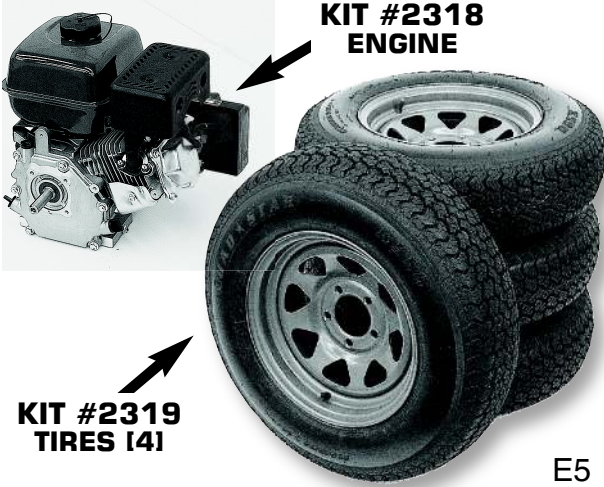
#3500 Hood & Seat Group



**KIT #2316
HOOD**

KIT #2317 SEAT

#4000 Engine & Tires Group



**KIT #2318
ENGINE**

**KIT #2319
TIRES [4]**



**CONVERTING a #2750 Mechanical Group [4WD]
to a #2500 Mechanical Group [2WD]**

**KIT#2201
FRONT AXLE
[2WD]**

**KIT #2202
STEERING HANDLEBARS
[2WD]**

TO CONVERT: Substitute **KIT #2201** Front Axle [2WD] and **KIT #2202** Steering Handlebars [2WD] for **KIT #2401** Front Axle [4WD] and **KIT #2402** Steering Wheel [4WD]... Check Price List for Details & Prices!

NOTE: Engine assembled; Tires mounted to rims.

Frequently asked questions about the MINI-BEEP® Amphibious ORT

What would you call the MINI-BEEP; an ATV, a UTV... What?

The MINI-BEEP Amphibious ORT is a totally new and unique outdoor vehicle!

It's exactly what it's name says...

MINI-BEEP - 4/5 scale version of a World War II JEEP®; [4WD or 2WD].

Amphibious - Can enter and maneuver in calm water.

ORT - Serves the function of a compact "off-road truck".

NO, it won't go screaming down a trail or try to jump a river like an ATV. It wasn't designed to do that, rather it's a serious off-road truck that can take on a variety of pushing, pulling and swimming assignments... but after work, it's just plain FUN!

How big is the MINI-BEEP?

It's approximately 99" long x 48" wide x 37" high (at top of dash). It weights approximately 700 lbs. (weight can vary greatly due to grade of plywood used in its Body and in the Accessories installed). It can carry a payload of 350 lbs. (weight of operator and load).

Can I buy it fully assembled?

The MINI-BEEP is designed to be "HOME BUILT" by the Do-it-Yourselfer and is only offered as a STRUCK-KIT.

What's a STRUCK-KIT®, and what's in it?

#1000 Plywood Body Group KIT: Every plywood panel you need to build your MINI-BEEP Body is included and accurately computer cut. All pilot holes for Body assembly and later mounting of Accessory KITS are precisely drilled.

#2500 & 2750 - Mechanical Drive Group KITS: All the "drive parts", plus every nut, bolt, washer and screw required for complete KIT assembly and adjustment are included. Nothing else to buy for your Mechanical Drive assembly. #2500 Group is [2WD] two wheel drive; #2750 is [4WD] four wheel drive.

#4000 - Engine & Tires Group KITS: Engine is fully assembled and ready for installation in your MINI-BEEP Body. Tires are mounted to rims and inflated... ready to bolt to your BEEP's front and rear Axle Hubs.

How long will it take to build a MINI-BEEP if I build it just with your KITS?

That's a tough question. It depends on the skill level of the builder and whether they have a helper or not. If you have average DIY skills and have an equally talented helper, you should be able to make your first MINI-BEEP test run after 3 or 4 weekends of work.

Do you offer assistance if I have problems assembling my MINI-BEEP?

With a MB80A Body Plans & Assembly Manual that has over 150 pages of step by step instructions and more than 250 detailed assembly photos, we find folks have very few questions. But if you have a specific assembly question with any of our STRUCK- KITS, we offer an "800 number" that you can call and get help.

Any special licensing?

Though the MINI-BEEP is not designed for highway travel, each State and Municipality may have its own unique regulations that folks are responsible to honor. If you have questions, it's suggested you contact your local authorities. See "**Very Special Note**" on page E10 regarding the Coast Guard's classification of a MINI-BEEP (amphibious vehicle) as a "home-built amphibious vehicle requiring only a Hull Identification Number".

How much can it pull?

Though many engines are possible, with a standard (196cc) Engine you can develop approximately 1/4 ton of “push or pull” at the rear mounted drawbar.

Where do I find other attachments?

STRUCK CORP. offers a universal Front Mounting Hitch (MB321) that allows the builder to use a popular Snow/Dirt Blade and Material Dump Bucket. In addition, we offer a Class 2 Rear Hitch Receiver KIT (MB311) that fits all Class 2 attachments that are within the BEEP’s recommended load ability.

Can more than one person ride in the MINI-BEEP?

An optional Buddy Seat (MB320) is available to allow extra seating for a passenger. NOTE: The “gross weight” of the operator, passenger and cargo can not exceed total payload weight of 350 lbs.

Will it get “water-logged” and sink?

By following the “Body Finishing Instructions” (page #B35), you will find instructions on the various methods to make your MINI-BEEP as water-proof as you want.

How stable is it in water?

The Body is very stable because of it’s “flat-bottom” construction. It’s actually a “unibody” assembled by the Builder from panels of 3/4” thick exterior grade plywood. He either cuts the Body’s panels out of his own plywood or uses the panels he purchased in our #1000 Plywood Body KIT. It draws approximately 8” of “draft” when loaded with two passengers.

When driving the BEEP into water, do I need a nice smooth ramp or can I just “jump in”?

For maximum safety, you will want to chose a water entrance that is reasonably smooth with a modest incline. You don’t want a site that is beyond the traction of your MINI-BEEP’s tires, nor steeper than the gradability of your BEEP... check DVD’s for incline examples! Remember, it’s easy to go in water [you’re normally going downhill]; much harder to get out [driving up a slippery bank]!

How do I buy my MINI-BEEP?

Nothing could be easier! Read the enclosed material. Determine your skill level and how involved you want to be in your MINI-BEEP project. Decide which components you wish to provide yourself and those you’d prefer to buy as a STRUCK-KIT®.

Fill out the MINI-BEEP Order Blank or call us for a Price Quote and a “no-obligation” freight estimate. In a matter of a few weeks you’ll realize how easy it was to build your own “one of a kind” MINI-BEEP Amphibious ORT!

How do you ship MINI-BEEP KITS?

Our large KITS, due to their weight, must be shipped via truck to a local freight terminal. They are palletized for lift-truck handling. On arrival, the freight company can easily load them on your truck or trailer. When you arrive home and cut the pallet’s banding, you will find that all the components can be easily handled by one person.

NOTE: Smaller KITS, if purchased later, are shipped to your home or business via UPS.

Do you offer financing?

The STRUCK CORP. is not licensed to offer financing. Over the years we have found that folks can get better loan terms by dealing with local loan officers where they have already established a good credit history. We do accept Visa, Mastercard and Discover cards.

Can I build them for resale?

By purchasing this MBA80 Plans/Assembly Manual, you are licensed by the STRUCK CORP. to build (1) one MINI-BEEP Amphibious ORT. Your *Hull Identification Number*, included with this Manual, is your license to build one MINI-BEEP following our Plans. To do otherwise would violate all applicable copyrights and patents.

What makes the **MINI-BEEP®** Tick?

MBA80 MINI-BEEP - Specifications & Recommendations

Nomenclature:	HOME BUILT, Off Road Truck, Amphibious, Two / Four Wheel Drive
Body:	Plywood Panels, B-C, Group 1, Exterior, 23/32, 4' x 8'
Engine:	Displacement: 196cc. (See "Engine Installation" page C53 for complete spec's)
Muffler:	Spark arrestor; muffler mounted
Brakes:	Foot operated, lever activated caliper, 8" disc Produces 1,619 foot pounds at rear axle; Foot operated while running; secured for parking with flip-down "Lock".
Tires, Front & Rear	ST205/75 D14; 26" dia., Rim: 14" dia., 5 mounting bolts on 4.5" circle (Will also accommodate ST175/80 D13; 24" dia., 5 bolts on 4.5" bolt circle)
Road Weight	700 lbs. [2WD]; 725 lbs. [4WD] This weight represents the "average" basic Mini-Beep without operator or load.
Payload Weight	350 lbs. This weight represents recommended combined weight of operator and load.
Gross (loaded) Weight	1050 lbs. [2WD]; 1075 lbs. [4WD] This is the combined weight of Road Weight & Payload.
Maximum Gradeability	26% This is the recommended maximum inclination.
Seating Capacity	1 Operator; 1 Passenger (requires optional MB320 Buddy Seat)
Maximum Axle Clearance	12 in.
Body Height (top of dash)	37-3/4"
Overall Body Width	49-1/2"
Overall Length	101" (Includes Front Bumper; does not include Rear Bumpers, Spare Tire, etc.)
Wheelbase	64-3/4"
Speed	0 - 5.15 MPH: This "recommended speed" was used in DVD. Other speeds possible with simple sprocket change. [Speeds above 10 MPH not recommended] Sprocket for 5.15 MPH "top speed" included with KIT #2315 Transmission.
Forward Ratio	Engine to wheels: 54 to 1
Reverse Ratio	Engine to wheels: 169 to 1
Axle Diameter	1" Front, 1-3/16" Rear
Gear Selection	Forward, Reverse and Brake (3 Pedals)
Maximum Rear Axle Torque	500 ft/lbs. - 1/4 ton (average torque result of Engines tested)

The (above) Specifications & Recommendations are consistent with the prototypes the STRUCK CORP. designed, tested and subsequently used in virtually all their promotional material and DVD's. They're presented as guidelines to what STRUCK CORP. considers quality performance and safety for a MBA80 MINI-BEEP. The Builder may wish to modify and expand these specifications (larger engine, higher top speed, steeper inclines, etc.), but in doing so he understands that he is taking full responsibility relative to his modification's safety and adaptability in comparison to the "standard" MBA80 MINI-BEEP as described in the (above) Specifications & Recommendations.

LIMITED WARRANTY

MINI-BEEP Amphibious ORT's are exclusively "home-built" vehicles. The "builder" of a Mini-Beep, assumes total responsibility for proper construction and assembly following this authorized MBA80 Mini-Beep Body Plans/Assembly Manual.

Each purchaser of this authorized Mini-Beep Body Plans /Assembly Manual is licensed to produce one version of the model MBA80 Mini-Beep. Each Mini-Beep Body Plans/Assembly Manual is assigned a Body/Hull Identification number... enter your Body/Hull Identification number on page D2 for future reference. This number allows the builder to identify his Mini-Beep for potential insurance and registration requirements.

NOTE: The MINI-BEEP used in all Catalogs, Manuals, DVD's, etc. was a prototype, operated by trained professional drivers and assistants. In Photos and DVD's, PFD's (personal floatation devices) were "stowed" in the BEEP's "trunk" and not worn in compliance with current Wisconsin DNR regulations for lakes and streams in the State of Wisconsin. We strongly encourage MINI-BEEP owners to use proper PFD's and to strictly follow all applicable safety & licensing regulations in their own locality, if required.

Though the Struck Corp. encourages creativity & customization on the part of Mini-Beep builders, the Struck Corp. can not warrant the safety nor performance of any modifications that the Struck Corp. has not produced, tested and evaluated.

NOTE: Due to the limited size of our engineering staff, the Struck Corp. does not offer engineering assistance to customers regarding their own unique Mini-Beep modifications using non-Struck components. All KITS are sold as complete entities. They are not available on a piece by piece basis except for fulfilling warranty responsibilities.

Struck Corp. makes every effort to assure that its products meet high quality and durability standards, and warrants the original purchaser for a period of one year from date of purchase that all parts and components of the product are free from defects in materials and workmanship. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily provide a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then purchaser must bear the cost of our returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Engines are warranted by their manufacturer.

C.F. STRUCK CORP.

No portion of this Plans/Assembly Manual, drawings, step by step instructions, DVD's, or photos may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without prior written permission of the original copyright owner.

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2.1.12

NOTES to the MINI-BEEP® Builder

1. Because of the “professional equipment” required, Construction Drawings for “home-fabrication” of the Mechanical Drive Group components are not provided.

2. In the following instructions, some “assembly” photos have certain components removed from a particular assembly. This was done to clarify certain “assembly steps”. The MINI-BEEP Builder should not interpret from these photos that those parts were meant to be permanently removed from the finished assembly!

3. The MINI-BEEP is not designed to be licensed and driven on public highways.

VERY SPECIAL NOTE:

An excellent pamphlet entitled: SAFETY STANDARDS FOR BACKYARD BOAT BUILDERS is published by the The United States Coast Guard and is available at no charge on line at: COMDTPUB P16761.3B. It contains a treasure of boat-building facts and safety considerations to be aware of when building a boat.

“Home-building” a MINI-BEEP Amphibious ORT (“boat”) does not qualify for any Coast Guard regulations because you are not manufacturing a boat for resale. Your only requirement is to have a Hull Identification Number affixed to your MINI-BEEP Hull. We provide this “factory authorized” number with each MBA80 Mini-Beep Body Plans/Assembly Manual we sell.

To quote this Coast Guard requirement:

...”AMPHIBIOUS VEHICLES ARE EXCEPTED FROM ALL REQUIREMENTS EXCEPT FOR THE HULL IDENTIFICATION NUMBERS.”

2.1.12

BUILDER'S NOTES

BUILDING A MINI-BEEP [4WD] REQUIRES...

#1000 Plywood Body Group

KIT #1000 Plywood Body - Parts List & Assembly Instructions
for "factory made" Plywood Body Parts page B1 thru B36

NOTE: Plywood Body KIT (above) shipped as 39 precision cut plywood panels, unassembled & unpainted.

OPTION: Builder may substitute "home made" Plywood Body Parts for our
KIT #1000 [above] using Plywood Body Plans found in this Manual page A1 thru A36

#2750 Mechanical Drive Group [4WD]

KIT #2203 Rear Axle - Parts List & Assembly Instructions page C8 thru C14
KIT #2401 Front Axle [4WD] - Parts List & Assembly Instructionspage C16 thru C26
KIT #2402 Steering Wheel [4WD] - Parts & Assembly Instructions page C28 thru C35
KIT #2314 Controls/Pedals - Parts & Assembly Instructions page C36 thru C43
- Adjustment Instructionspage C59 thru C62
KIT #2315 Transmission - Parts & Assembly Instructions page C44 thru C52

NOTE: Mechanical Drive Group components (above) are fully fabricated, but unpainted & unassembled.

#3500 Hood & Seat Group

KIT #2316 Hood - Parts & Assembly Instructions (unassembled & unpainted)..... page C64 thru C66
KIT #2317 Seat - Parts & Assembly Instructions page C64 thru C66

#4000 Engine & Tires Group

KIT #2318 Engine - Specifications & Installation Instructions page C53 thru C58
KIT #2319 Tires - Specifications & Installation Instructions page C68 thru C69

Building A MINI-BEEP [2WD] REQUIRES...

CONVERTING A #2750 Mechanical Drive Group [4WD] to a #2500 Mechanical Drive Group [2WD]

TO CONVERT: Substitute **KIT #2201** Front Axle [2WD] & **KIT #2202** Steering Handlebars [2WD] (below) for **KIT #2401** Front Axle [4WD] & **KIT #2402** Steering Wheel [4WD] (above)... Check Price List for Details & Prices!

KIT #2201- Front Axle [2WD] Parts List & Assembly Instructions page C2 thru C3

KIT #2202- Steering Handlebars [2WD] Parts List & Assembly page C4 thru C7

#MBA80-B Operator's Manual

MBA80-B MINI-BEEP - Operation, maintenance and safety of MINI-BEEP..... page D1 thru D11

NOTE: After the assembly of your MINI-BEEP and Accessory KITS is complete, and prior to any operation, have your MINI-BEEP examined by a qualified and knowledgeable professional to ensure proper assembly, operation, safety and compliance with all applicable laws and regulations. **Operator safety depends on it!**



MINI-BEEP®

AMPHIBIOUS OFF-ROAD TRUCK



STRUCK-KIT®
Division of C. F. Struck Corporation
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