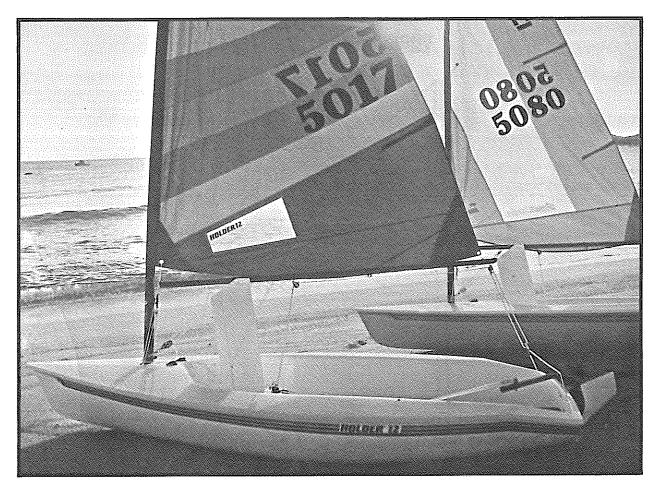


# ASSEMBLY MANUAL



#### Introduction

Welcome to the Holder® family of sailors. Thanks for joining us. By purchasing the Holder® 12, you are treating yourself to the ultimate in sailing enjoyment.

Even if you have long experience with sailboats, please read this manual thoroughly. It will give you easy, accurate instructions on assembling your new boat. We suggest reading through the manual completely before you begin assembly. Pay special attention to the boat and parts descriptions shown on the following pages.

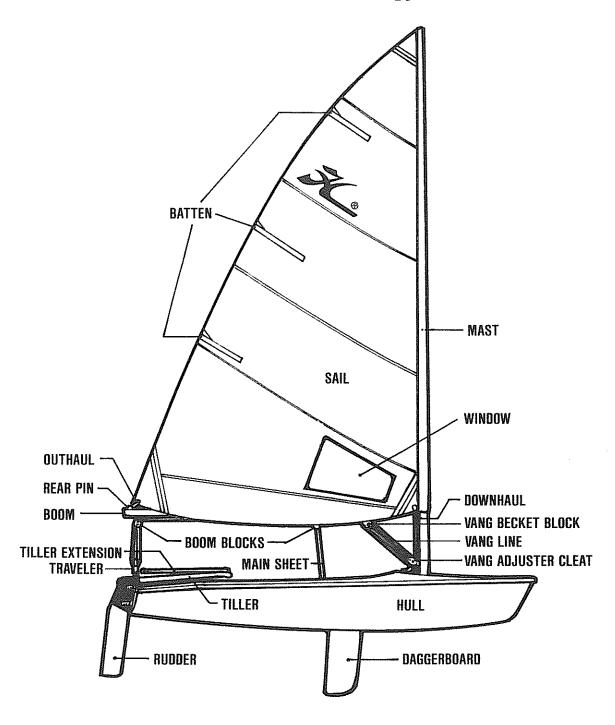
If you are new to sailing, this manual will not teach you how to sail. There are many excellent courses and books available on the safe handling of small sailboats. Contact your Holder® dealer or local Coast Guard Auxiliary for recommendations on courses in your area. They'll be happy to help.

Please remember to obey the most important rule of all when assembling your boat—stay away from overhead power lines! Before starting to rig your boat, thoroughly examine the area for power lines and report any potentially hazardous power line that you see by writing to the reponsible utility company, send a copy to Hobie Cat Bounty Program, P.O. Box 1008, Oceanside, CA 92054 and sail elsewhere. Remember, CONTACT OF A MAST WITH A POWER LINE COULD BE FATAL.

The Holder<sup>®</sup> 12 is made with the innovative Comptip<sup>™</sup> mast tip (U.S. Pat. No. 4,597,346). This is an essentially non-conducting composite tip which can help prevent electrocution and boat damage from mast/power line contact. Hobie Cat worked many years to develop this new tip so that it would be as effective as possible. Still, nothing can provide total protection at all times, so it's best to avoid wires. Be sure to read the "Maintenance" section to find out how to protect the tip's insulating ability.

By following the instructions, maintaining your new boat properly and observing safety rules, we're confident you'll receive many years of sailing enjoyment from the Holder<sup>®</sup> 12.

# **HOLDER 12® Terminology**



#### -WARNING-

Before starting assembly, be sure the area in which you plan to work is free from overhead power lines. Contact of a mast with a power line could be fatal.

1) Hull

2) Pad Eye with Block

3) Mast Tube

4) Jam Cleat

5) Upper Mast Comptip®

6) Lower Mast

7) Gooseneck Attachment Casting

8b) Main Sheet Block

8a) Main Sheet Block with Becket

9) Boom

10) Gooseneck

11) Vang Block

12) Sail

13) Battens

14) Daggerboard

15) Rudder Assembly

16) Mainsheet (5/16" x 35') 17) Halyard Line (1/4" x 34')

18) Outhaul Line (3/16" x 6') 19) Traveler Line (1/4" x 4')

20) Downhaul Line (3/16" x 8')

21) Twist Shackle

22) Tiller Extension Connector

23) Vang Block (Lower)

24) Traveler Block

25) Cockpit Drain Plug

26) Warranty Card, Manual

27) Tiller Extension

28) Hull Drain Plug

29) Cockpit Drain Hole

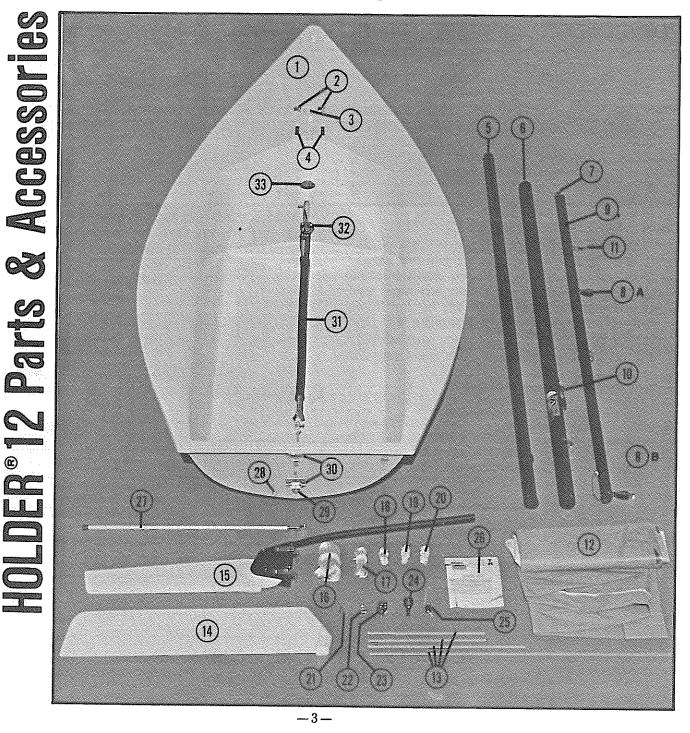
30) Gudgeons

31) Hiking Straps

32) Main Swivel Jam Cleat

33) Compass

NOTE: Some parts shown may not be with standard boats.



# **ASSEMBLY INSTRUCTIONS**

#### I. The Plugs

The larger drain plug (part #25) is used to drain the cockpit of the boat. Insert the large drain plug from the inside of the HOLDER® 12 into the drain hole, which is in the center and bottom of the stern or rear of the boat (part #29). Secure the plug by looping the line through the padeye as shown in Figure 1.

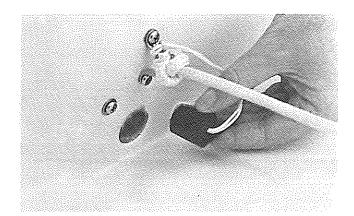


Fig. 1

The smaller plug threads into the hole located on the exterior of the transom by the large drain plug hole as shown in Figure 2. Be sure to use the black gasket to prevent leaks. (This may already be installed.)

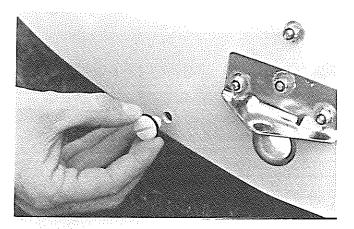


Fig. 2

#### II. Traveler Assembly

Figure 3 shows an example of a completed traveler line and block assembly. To assemble the traveler, first find the traveler block set. This block has two pulleys (part #24). Now find the traveler line (part #19). Tie a figure 8 knot in one end of the line and insert the other end of the line, from the outside of the HOLDER® 12, through the small hole in the upper right-hand corner of the rear of the boat.



Fig. 3

Pull the line all the way through and then thread the line through the small block of the traveler block set. Now insert the end of the line from the inside of the boat through the small hole at the upper lefthand corner of the boat. Tie a figure 8 knot in the end of the line.

Make sure the knots are secure and that the traveler block set can run freely along the line.

#### III. Mast and Sail Assembly

#### A. Standard and Special Edition

The mast is in two sections (part #'s 5, 6). The bottom section displays the warnings against sailing and assembling near overhead wires and power lines. Before raising the mast, check again that you are in a safe area and always remember this warning.

Insert the top section of the mast into the bottom section, making sure the tab on the rib fits securely into the notch at the opening, as

shown in Figure 4.

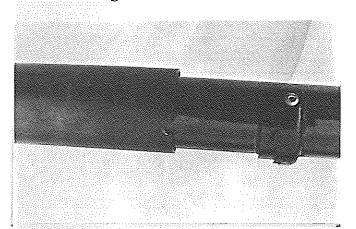


Fig. 4

Next, find the three sail battens (part #13) and insert them into the batten pockets in the sail. To do this, push the batten in and then slightly down with your thumb and forefinger (Figure 5). The batten should slide in easily.

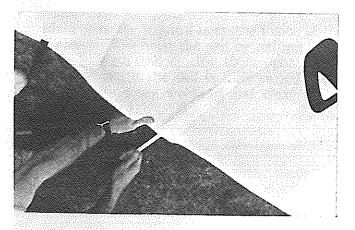


Fig. 5

#### B. Standard Sail

Insert the top of the mast into the sail sleeve at the front of the sail and pull the sail over the mast as far as possible, making sure the sleeve doesn't twist around the mast (Figure 6).

At the bow, or front of the boat, is the mast socket. It is a deep hollow area. You are now ready to insert the mast into the mast socket.

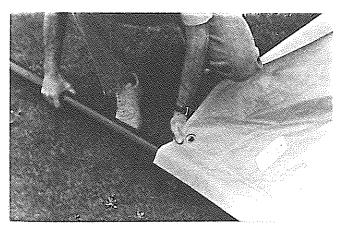


Fig. 6

To make rigging the boat easier, point the boat into the wind to keep the sail from twisting around the mast. Now insert the mast as shown in Figure 7.

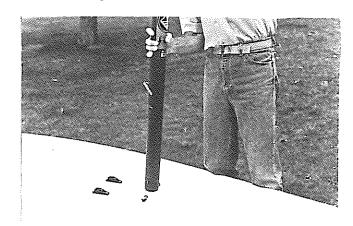


Fig. 7

#### C. Special Edition Sail (Zipper Luff)

Locate halyard line (part #17) and run it through the mast head (Figure 8) using a bowline knot; attach the line to the head of the sail

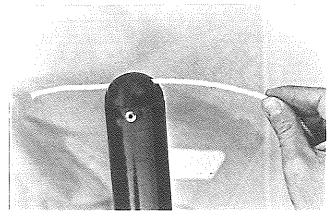


Fig. 8

(Figure 9). Place the sail in the cockpit and connect the zipper by wrapping the luff sleeve around the mast. Fold the webbing around to the Velcro® attachment point (Figure 10).

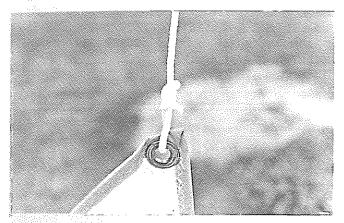


Fig. 9

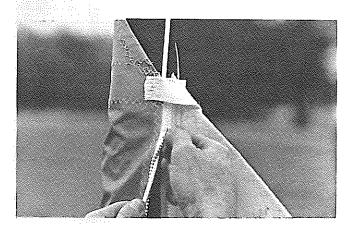


Fig. 10

Make sure the halyard is on the inside of the luff sleeve. Now hoist the sail by pulling down on the halyard and closing the zipper simultaneously. When the sail is fully raised, close the Velcro® cover webbing and cleat off as shown (Figure 11).

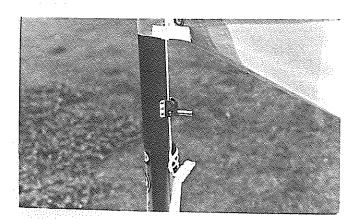


Fig. 11

#### IV. Boom Assembly

The HOLDER® 12 boom (part #9) is simple to use, yet it is one of the most advanced designs available on a sailboat of this size. To connect the boom, slide the end where the hole is onto the gooseneck (Figure 12). Then take the clew of the sail in one hand and the outhaul "S" hook in the other, and hook into the grommet (Figure 13). You are now ready to connect the outhaul line.

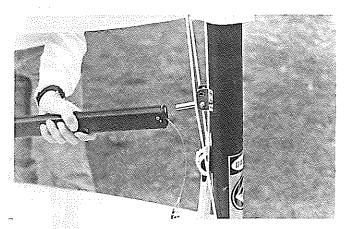


Fig. 12

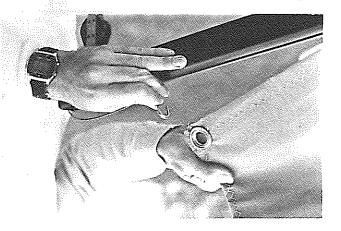


Fig. 13

# V. Outhaul, Downhaul and Vang Assembly

Locate the outhaul line (part #18) and the downhaul line (part #20). Attach them to the padeyes on the deck (part #2), using a bowline knot (Figure 14). (It does not matter which side you use.) Run the outhaul line through the outhaul block, down to the block connected on the padeve and exit through the jam cleat (part #4). Follow the same procedure, but from the other side, and go through the grommet at the foot of the sail for the downhaul. Both shown (Figure 15). To connect the vang, start by attaching the twist shackle (part #21) to the lower mast strap and the vang block (part #23) (Figure 16). Run the line as shown (Figure 17). NOTE: Vang line should be attached to the boom. Standard boats do not have vang.

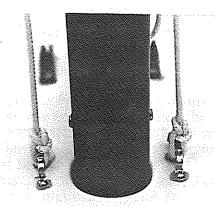


Fig. 14

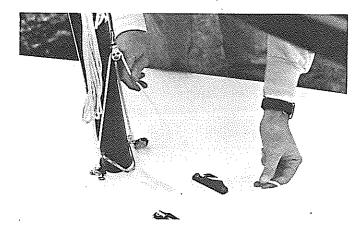


Fig. 15



Fig. 16

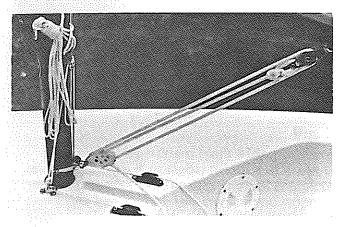


Fig. 17

#### VI. Mainsheet Assembly

Locate mainsheet (part #16). Take one end of the mainsheet and tie it to the small block hanging at the rear of the boom with a bowline (Figure 18). Run the free end through the large block of the traveler block set and then back up to and through the small block hanging at the rear of the boom.

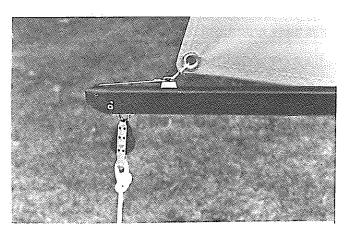


Fig. 18

Now run the free end of the mainsheet forward along the boom. Run the line through the circular strap attached to the boom and then run the line through the block attached to the boom just forward of the strap.

Continue the line forward and then down through the mainsheet block (part #32) attached to the bottom of the hull behind the mast and the daggerboard slot. Tie the free end of the line in a figure 8 knot about 6 inches from the end. Shown, Figure 19.

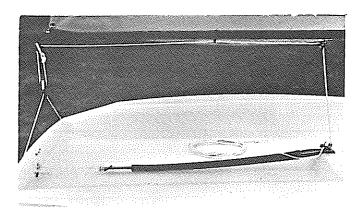


Fig. 19

#### VII. Rudder and Daggerboard

To attach the rudder assembly (part #15) to the boat, align the pins on the rudder with the fittings (part #30) on the transom. Make sure that the tiller is placed underneath the traveler line. Make sure the clip on the upper fitting engages the top rudder pin (Figure 20). Now push down.

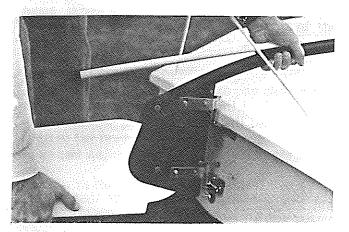


Fig. 20

Insert the daggerboard (part #14), just barely enough to keep it upright, into the slot. As the water deepens, push the daggerboard completely down. At the end of the day as you approach shore, pull the daggerboard up. You can run the downhaul line through the hole in the daggerboard; tie off with a figure 8 knot (Figure 21).

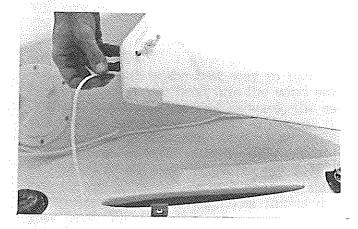


Fig. 21

This will keep you from losing the daggerboard in the unlucky event of a capsize.

#### -Special Notes-

#### Using the Kick-up Rudder

The kick-up rudder on the HOLDER® 12 permits the rudder to do all of the hard work by using the over-center cam principle. Snapping the end of the tiller puts the rudder in motion and causes the rudder to raise or lower itself as needed. Do not try to force the rudder up or down. It is recommended that you practice this motion once or twice before beginning your sail.

YOUR HOLDER® 12 IS NOW READY TO SAIL!

#### VIII. Basic Sailing:

Safe and sane guidelines for the beginner; an easy review for the experienced.

#### Balancing the Boat

The first hurdle. When getting in the HOLDER® 12, step to the middle of the boat. When getting out, step from the middle of the boat. When sailing, watch your tiller and try to sit immediately in front of the tip of the tiller.

#### Sail Power

Sit facing the sail in order to pay close attention to the trim. When the sail is tight, you'll get maximum power. If your sail begins to luff (flap in the breeze), you'll lose power. Test your trim and adjust for the wind whenever necessary.

Refer to the figure below. About 90° of a 360° area is the "Dead Zone" where the sail and tiller can't be positioned to generate any power. The sail will luff and you will be "in irons," which means you are not moving.

#### Heading Up and Falling Off

Heading up and falling off are the art of veering away from oncoming boats or other obstacles. To head up: push the tiller toward the sail and the boat will head into the wind. To fall off: pull the tiller away from the sail and the boat will veer away from the wind. The sail will not change sides in either maneuver.

#### **Coming About**

Coming about is the best way to turn the boat around. As you head into the wind with the boat constantly moving forward, the sail will change sides, and the boat will cross the wind and change direction.

To come about: First, push the tiller smoothly and firmly all the way toward the sail. Second, you change sides as the sail changes sides. Remember to duck as the boom passes over your head. Third, change your hands so that your forward hand is again holding the mainsheet and your aft hand is holding the tiller. Finally, straighten the tiller when the turn is finished and sail. Remember, have enough speed to start; firmly control the tiller and follow through.

Occasionally, you may have to jibe. Jibing is like falling off, in that you pull the tiller away from the sail. The sail and you will also change sides. However, there is greater tendency to tip over and the sail may whip across in jibing. Therefore, come about whenever possible.

#### Righting the Boat

If you tip over, stay with the boat (it won't sink and is easy to right).) It's not necessary, but the boat is easier to right when the mast is positioned to point into the wind. Release the mainsheet, then grab onto either the gunnel or the hiking strap. Push the centerboard with your knees or feet. When the boat starts coming up, climb in and continue sailing.

#### Docking

Docking the HOLDER® 12 properly prevents damage. Always dock and rig the boat on the leeward side of the dock. (The leeward side is the side the wind reaches last.)

Come in slowly and be alert; watch the whole boat to avoid bumping another boat with a section you thought was safe. Know where the wind is coming from at all times; the stronger the wind, the more difficult a smooth docking. Remember, a luffing sail will act as a brake.

Until you feel confident, you may want to practice docking with a friend who will stand on the dock and slow you down if necessary.

#### SAFETY TIPS

- Sail to your experience. Do not try to do more than you can.
- Do not take the HOLDER® 12 out in the surf and do not head out for the ocean unless you are a real pro.
- Wear a life jacket.
- Learn the right-of-way rules and when in doubt, give way to others.

#### IX. Trailering

In addition to following all the instructions included with your trailer and obeying the relevant state laws concerning trailering boats, several safety tips should be included in your normal routine to assure the safe passage of your HOLDER® 12.

Before starting on your way with the boat on the trailer, make sure that the boat is securely strapped/tied down. Make sure that the mast is tied down securely, preventing the mast from becoming loose during transport.

#### X. Maintenance

A. Comptip" Mast (U.S. Pat. No. 4,597,346)

To be sure your mast is providing maximum protection, it has to be periodically maintained and examined. The following simple steps should be undertaken after each sail.

 Because surface contamination can allow the Comptip™ to conduct electricity, the fiberglass tip should be carefully and thoroughly cleaned with fresh water after each use. In the event fresh water will not remove surface film or other contamination, use soap and water only. DO NOT attempt to clean the Comptip™ mast with any type of solvent. Acetone or other solvents will damage it.

2. Do not leave the mast tip in direct sunlight for extended periods. Cover the tip whenever it is not in use so ultraviolet rays will not impair its effectiveness.

3. Please remember that the Comptip™ mast is not a total guarantee against injury or death in the event of a mast/powerline contact. If the surface is contaminated with moisture, salt, dirt or other foreign matter; or, if the mast touches a line carrying extremely high voltage, an electrical injury could still occur. Additionally, the protection is, obviously, confined to the tip area only. A contact of the aluminum portion of the mast is still extremely dangerous. The only sure protection for any sailor on any boat is a complete avoidance of electrical powerlines.

#### B. Appearance

It's very easy to keep your new HOLDER® 12 fresh-looking. Just follow these minor steps.

1. After each sail, especially a salt-water sail, thoroughly rinse your boat with fresh, clean water to remove salt, grime or other foreign material. This will help prevent your metal parts from corroding.

Carefully inspect all metal parts, fittings and wires for signs of stress and wear as you rig your boat before each sail. If a wire looks frayed or corroded, have it re-

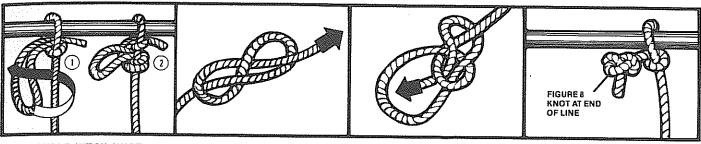
placed.

3. When storing your boat for the winter, cover it with an opaque sheet of plastic. Form the plastic into an A-frame. By tenting your boat, you will prevent snow, leaves and other debris from accumulating on the hull. Be sure no water lies in the hull or the mast socket. Freezing water in those areas could cause hull damage.

#### For More Information -

For more information about boating or available classes and seminars in your area, call the toll-free boating education hotline at 1-800-336-BOAT. Or, write to your state boating authority, local power squadron, or the U.S. Coast Guard, Office of Boating, Public and Consumer Affairs, Washington, D.C. 20593.

## **Knots to Use**

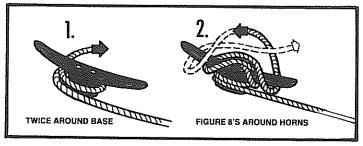


DOUBLE HITCH KNOT

FIGURE 8 KNOT

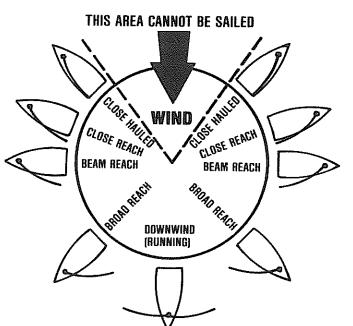
**BOWLINE KNOT** 

HALYARD KNOT



**CLEATING OFF A LINE** 

### **Basic Sailing**



**Points of Sail** 

FALLING OFF COMING ABOUT

HEADING UP

**Changing Direction** 

Send in your warranty card.



#### Remember

Watch for overhead wires whenever you are sailing, launching, or trailering with the mast up. The mast sticks up there a long way and shock or death could result if it comes in contact with overhead wires. So look up when moving the boat around or even stepping the mast, and give any wires a wide berth.



by HOBIE CAT.

4925 East Oceanside Blvd. P.O. Box 1008 Oceanside, California 92054 TEL: 619/758-9100 FAX: 619/758-1841 TELEX: 910-3221395