CLUTCH CONTROL – USE TELEFLEX #6400 CABLE

1 Establish location on engine shift lever with maximum travel of 2 5/8" when shifted from forward to reverse gear. Drill hole at this location to fit clevis pin. Some levers come provided with holes in proper location

2 Install Teleflex #6400 cable of proper length through pedestal to shift lever on engine. Lift cable end out of pedestal and remove locknut and rubber seals.

3 Enter cable through boss on control leg and tighten set screw into groove in cable hub. Tighten locknut and replace seals.

4 Install clevis on shift cable about half of thread length. Connect clevis to lever in control head and fasten head to pedestal top.

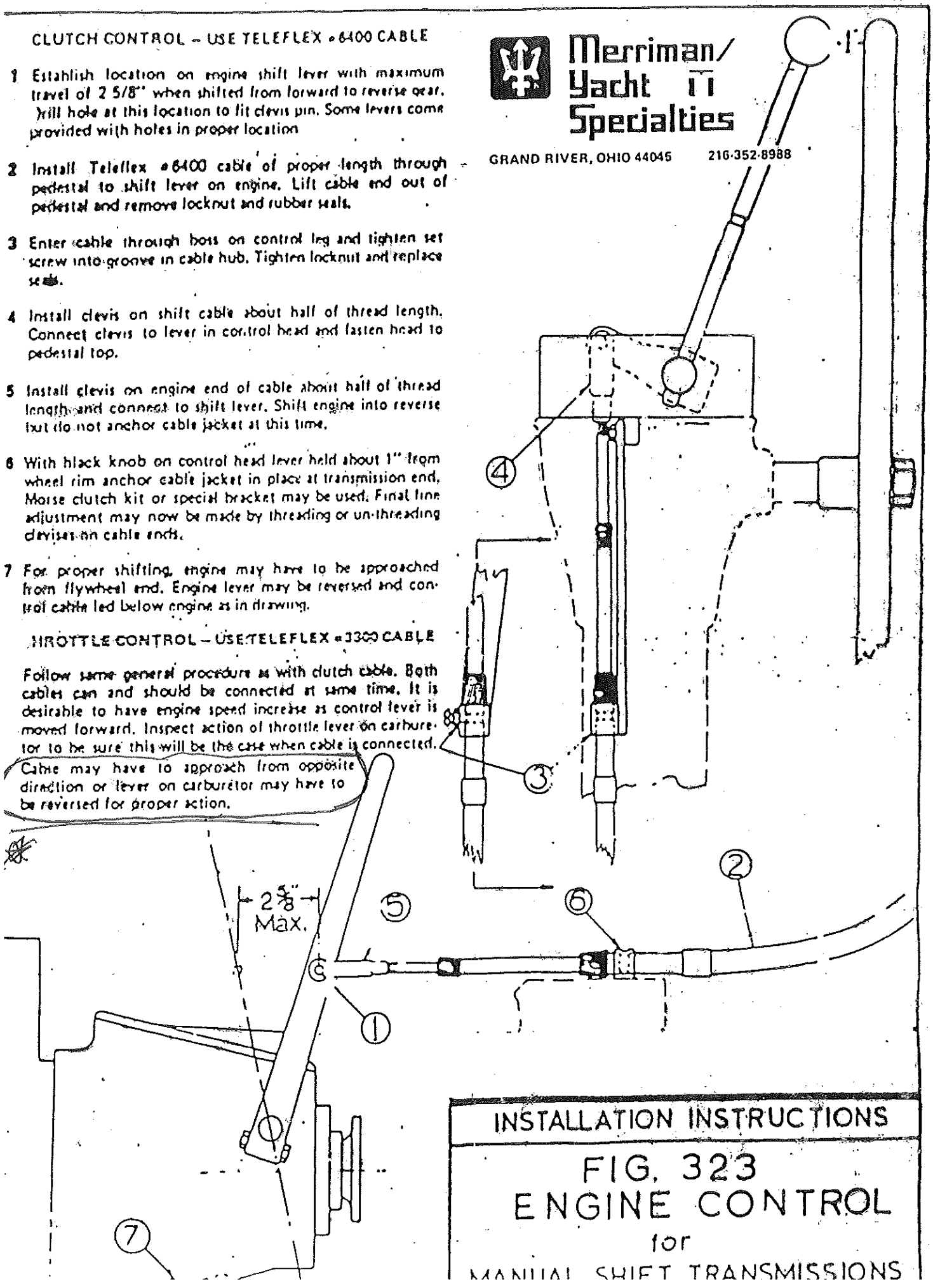
5 Install clevis on engine end of cable about half of thread length and connect to shift lever. Shift engine into reverse but do not anchor cable jacket at this time.

6 With black knob on control head lever held about 1" from wheel rim anchor cable jacket in place at transmission end. Morse clutch kit or special bracket may be used. Final fine adjustment may now be made by threading or un-threading clevises on cable ends.

7 For proper shifting, engine may have to be approached from flywheel end. Engine lever may be reversed and control cable led below engine as in drawing.

THROTTLE CONTROL – USE TELEFLEX #3300 CABLE

Follow same general procedure as with clutch cable. Both cables can and should be connected at same time. It is desirable to have engine speed increase as control lever is moved forward. Inspect action of throttle lever on carburetor to be sure this will be the case when cable is connected. Cable may have to approach from opposite direction or lever on carburetor may have to be reversed for proper action.

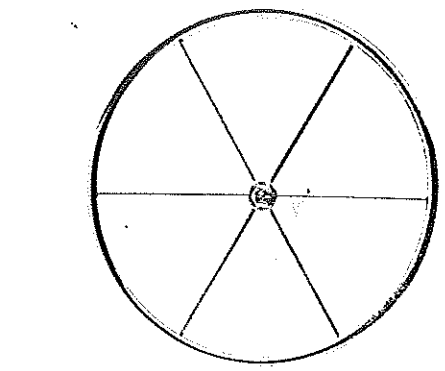


Merriman/ Yacht Specialties

GRAND RIVER, OHIO 44045 216-352-8988

INSTALLATION INSTRUCTIONS

FIG. 323 ENGINE CONTROL for MANUAL SHIFT TRANSMISSIONS



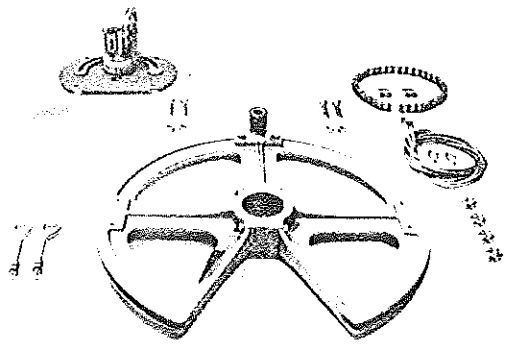


FIG. 606 SMALL BOAT STEERING SYSTEM
FIG. 607 STANDARD STEERING SYSTEM

Two steering systems using our disc drive are shown on this page. The disc drive is an ideal and economical way to steer a boat but it cannot be used in all situations. It works best on boats with rudder shafts which are perpendicular to the waterline or cockpit deck—or near to perpendicular to same.

On page 8 is a more complete discussion of the use of our disc drive and drawings showing installation of the system.

Suggested Accessories:

Fig. 150 Brake Assembly
Fig. 300 Pedestal Guard
Fig. 321 or 323 Engine Control

When ordering give the following information:

1. Compass to be used
2. Rudder shaft diameter
3. Design or class of boat

Fig. 606 Small Boat System includes the following:

1	Fig. 98 Pedestal Steerer
1	Fig. 200 20" wheel
1	Fig. 412 3-1/2" lapping idler plate
1½ ft.	Fig. 420 1/2" S.S. roller chain
2	Fig. 421 1/2" S.S. connecting links
4	Fig. 422-S 3/8" x 2-1/2" mounting bolts
2	Fig. 424 5/32" chain to wire rope swages
2	Fig. 425 5/16" eye bolts
14 ft.	Fig. 426 5/32" 7 x 19 S.S. wire rope
2	Fig. 427 5/32" S.S. thimbles
4	Fig. 428 3/16" cable clamps
1	Fig. 505 8" disc drive

Specifications:

Height to shaft center line . . . . . 28"/71 Cm.
Total weight of system . . . . . 35 lbs./15.9 Kg.
Turns of wheel H.O. to H.O., 80° . . . . . 1.6 turns

Fig. 607 Standard Steering System includes the following:

1	Fig. 101 Pedestal Steerer
1	Fig. 200 24" wheel
1	Fig. 412 4" lapping idler plate
2 ft.	Fig. 420 5/8" S.S. roller chain
2	Fig. 421 5/8" S.S. connecting links
4	Fig. 422-S 1/2" x 2-1/2" mounting bolts
2	Fig. 424 3/16" chain to wire rope swages
2	Fig. 425 3/8" S.S. eye bolts
14 ft.	Fig. 426 3/16" 7 x 19 S.S. wire rope
2	Fig. 427 3/16" S.S. thimbles
4	Fig. 428 3/16" cable clamps
1	Fig. 505 10" disc drive

Specifications:

Height to shaft center line . . . . . 28"/71 Cm.
Total weight of system . . . . . 45 lbs./20.2 Kg.
Turns of wheel H.O. to H.O., 80° . . . . . 2 turns

FIG. 606 SYSTEM RECOMMENDED FOR BOATS UP TO 30 FEET IN LENGTH ONLY.

Boat Length Overall	Displacement Type	Recommended Sizes: Sheave	Recommended Sizes: Wire	Recommended Steering System	Size of Disc: Radius	Outside Diameter of Disc	Turns of Wheel H.O. to H.O.: 70°	Turns of Wheel H.O. to H.O.: 80°	Disc Size	Min. Distance C/L Rudder Shaft to C/L Pedestal Sheave Size: 3½"	Min. Distance C/L Rudder Shaft to C/L Pedestal Sheave Size: 4"	Min. Distance C/L Rudder Shaft to C/L Pedestal Sheave Size: 6"	Max. Distance C/L Rudder Shaft to C/L Pedestal Sheave Size: 3½"	Max. Distance C/L Rudder Shaft to C/L Pedestal Sheave Size: 4"	Max. Distance C/L Rudder Shaft to C/L Pedestal Sheave Size: 6"
Up to 30'	Light	3-1/2"	5/32"	Fig. 606	8"/20 CM	17"/43 CM	1.4	1.6							
Up to 30'	Heavy	4"	3/16"	Fig. 607	8"/20 CM	17"/43 CM	1.4	1.6	8	10-1/2" 26.7 CM	11" 27.9 CM	13" 33 CM	48" 1.22 M	48" 1.22 M	32" 0.8 M
30'-35'	Light	4"	3/16"	Fig. 607	8"/20 CM	17"/43 CM	1.4	1.6							
32'-35'	Medium	4"	3/16"	Fig. 607	10"/25.4 CM	21"/53 CM	1.7	2							
35'-38'	Light	4"	3/16"	Fig. 607	10"/25.4 CM	21"/53 CM	1.7	2	10	12" 30.5 CM	13" 33 CM	14" 35.6 CM	60" 1.52 M	60" 1.52 M	40" 1.0 M
36'-42'	Heavy	6"	1/4"		10"/25.4 CM	21"/53 CM	1.7	2							

FIG. 505 DISC DRIVE

Our Fig. 505 Disc Drive is illustrated on this page. As is shown, this unit is installed on the rudder shaft where a quadrant is normally installed. There are advantages and disadvantages to using this drive.

The one big advantage is that the "turning sheaves" which are necessary when a quadrant is used are eliminated. The cables lead directly from below the pedestal to the groove in the rim of the disc drive. Eliminating two sheaves does reduce a small amount of friction and it also makes the basic cost of the system more economical.

One disadvantage to the unit is that there is no flexibility to alignment of cables into the groove. As can be seen in the drawings, the disc must be installed in precisely the right location on the rudder shaft so the cables will lead properly. If the rudder shaft is perpendicular or near so, the disc drive works well. If there is any amount of rake-positive or negative-to the rudder shaft we feel it is best to use a system with one of our Fig. 411 or Fig. 416 assemblies.

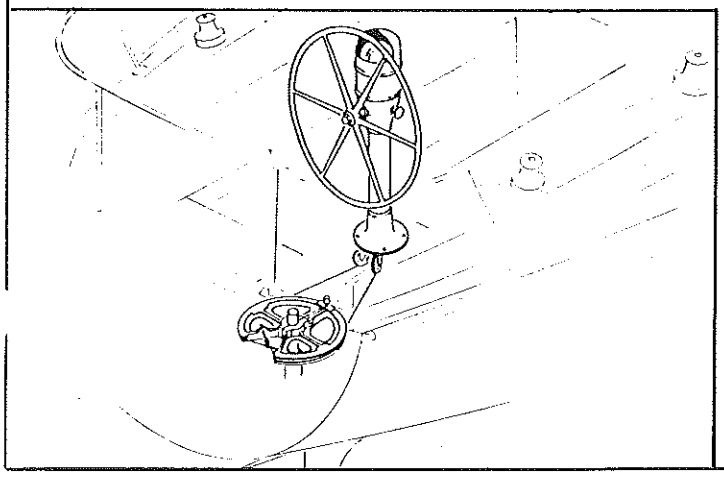
You must be sure there is room for this disc to be installed and be clear of everything below the cockpit. Cockpit scuppers in the aft corners of the cockpit may have to be rerouted or turned 90° with an elbow to clear the disc.

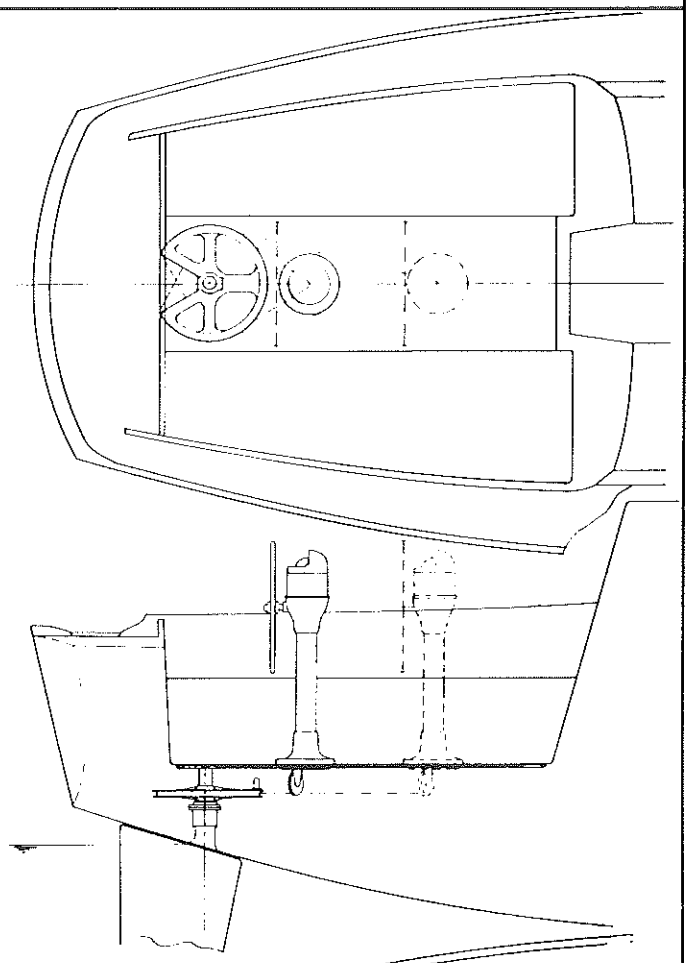
Depending on the location of the rudder shaft in the cockpit, the pedestal may be located either forward or aft of the disc. If the pedestal is to be forward of the rudder shaft, our Fig. 412 lapping idler plate must be used below the pedestal. This unit allows for crossing the cables as they lead down the pedestal column. If the cables are not crossed, your boat will steer backward. See detail 18, on page 56.

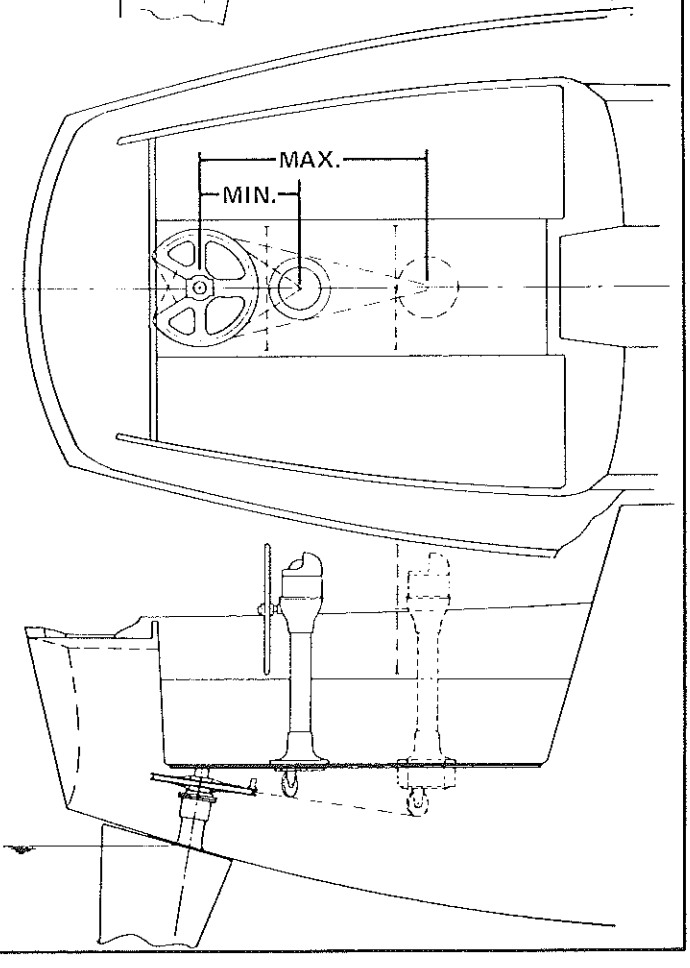
There are also limitations as to how close or how far from the rudder shaft the pedestal may be located. These dimensions are shown below and on page 49.

SHEAVE SIZE		DISC SIZE 6½"	8"	10"	12"
4"	min.	10" 25.4cm	12" 30.5cm	13½" 34.3cm	15" 38cm
	max.	36" 0.9M	48" 1.2M	60" 1.5M	72" 1.8M
6"	min.		13½" 34.3cm	15" 38cm	16½" 42cm
	max.		32" 0.8M	40" 1.0M	44" 1.1M

COMPLETE SYSTEMS SHOWN ON PAGE 49.







SPECIALTIES COMPANY, INC.
MANUFACTURERS of FINE YACHT STEERING EQUIPMENT
1588 East St. Gertrude Place • Santa Ana, California 92705

INSTRUMENT HOUSINGS - FIG. 314 & 315

INSTALLATION INSTRUCTIONS

Provisions are made to run instrument cables down either the pedestal column (1) or the guard legs (2). If the cable leads are to be led down the guard legs, the terminal fittings will have to be removed and re-installed or the cable must be cut at a point where they can be spliced below the cockpit deck after the installation is completed. A hole must be drilled through the cockpit deck in the center of the guard sockets and it is suggested the sockets be bedded down with a sealant when fastening to the cockpit to prevent water leaking below deck (3). Apply sealant when entering guard legs in deck sockets (3).

STEP 1. Assembly of unit.
Remove 1/4" S.S. cap screws (4) holding retainer washers (5) to bottom of pods. Apply a coating of white grease to surface of "O" ring in retainer washer and to inside edge of 2½" diameter holes in mounting plate. Press retainer washers into openings from bottom side of plate. There is a protrusion on the edge of the retainer washer (6). This acts as a limiting stop for the pod and should point forward when the pod faces aft so pod will turn through the proper sector.

Apply a coating of white grease to bottom of pod (7) and fasten same to plate with 1/4" S.S. cap screws. Fasten third pod, which does not swivel, to center position on plate. Use grease on all fastenings to facilitate easy removal at a later time if necessary.

Remove grommets (2) from holes in legs of guard rail. Enter guard through holes in plate and re-install grommets.

STEP 2. Preliminary installation.
Slide deck sockets onto guard legs and temporarily fasten unit to top of pedestal. Align guard legs to pedestal column and fasten sockets to cockpit deck, bedding as suggested above.

STEP 3. Installation of instruments.
Due to the limited space inside of the pod and around the body of the instruments, the usual retaining devises furnished with the instruments cannot be used. It is also desirable to seal the joint between the bezels of the instruments and the faces of the pods so we suggest using a silicone rubber sealant to both seal the joint and to secure the instruments into the pods. Apply a moderate amount of sealant to back side of bezel (8) and enter the instrument into pod, aligning face of instrument.

STEP 4. Final installation.
The unit is now ready for final installation. Unfasten unit and lift free of pedestal top and deck sockets. Feed instrument cables down pedestal column or guard legs, which ever is desired, and refasten to pedestal top and deck sockets, bedding as suggested above (3). Again, we suggest applying white grease to fastenings when fastening plate to pedestal.

On the under side of the plate are provisions for securing the instrument cables so they will not hang down below the bottom surface of the plate.