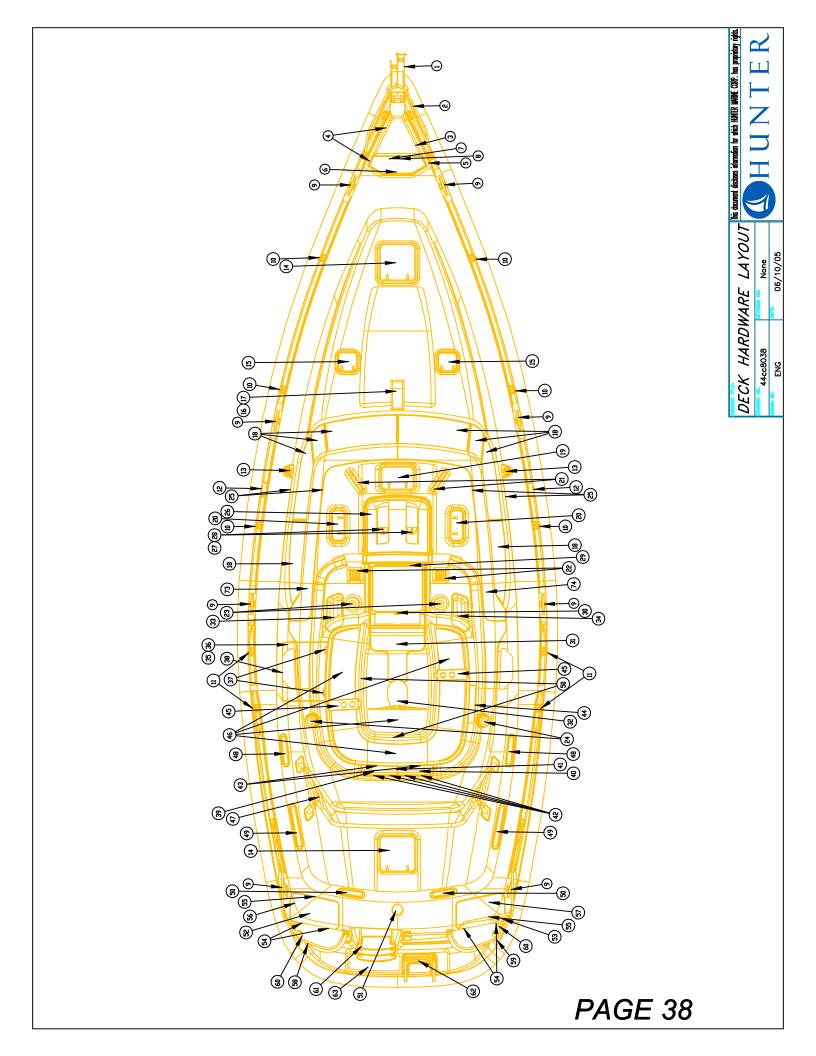


## **H45cc DIMENSIONS, CAPACITIES, ETC.**

42' 1" 43' 2 1/2" 39' 8 1/4" 14' 05"	12.83 m. 13.17 m. 12.1 m.
39' 8 1/4"	12.1 m.
14' 05"	
	4.39 m.
5' 00"	1.52 m.
6' 06"	1.98 m.
23,830 lbs.	10809kg.
23,982 lbs.	10878kg.
7389 lbs.	3352 kg.
7237 lbs.	3283 kg.
57' 3"	17.45 m.
60' 8"	18.49 m.
833.5 sq. ft.	77.4 sq. m.
•	80.9 sq. m.
26.4	
27.6	
	14.6 m.
	4.47 m.
46' 06"	14.17 m.
	15.24 m.
	10.24 1111
20' 09"	6.32 m.
	6.35 m.
	0.33 111.
	2.06 m.
	288 liters
	564 liters
	42 liters
	182 liters
•	
	2 x 4.5 kg.
-	Start Bank 65 amps
/5 hp.	56 kw.
	23,982 lbs.  7389 lbs.  7237 lbs.  57' 3"  60' 8"  833.5 sq. ft.  871.1 sq. ft.

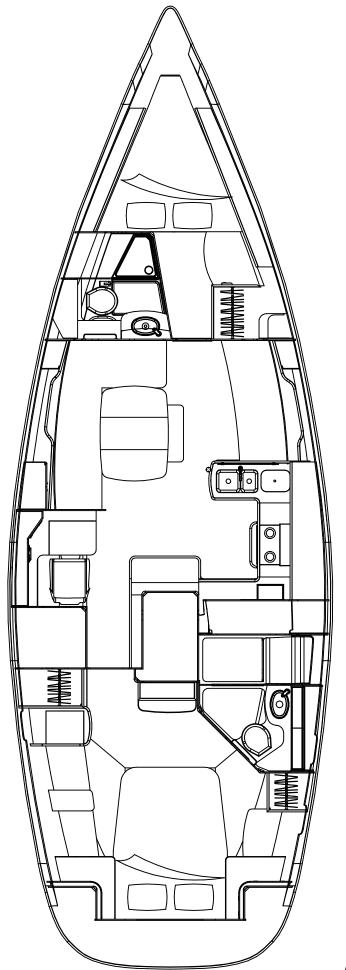


## H45CC DECK HARDWARE LIST

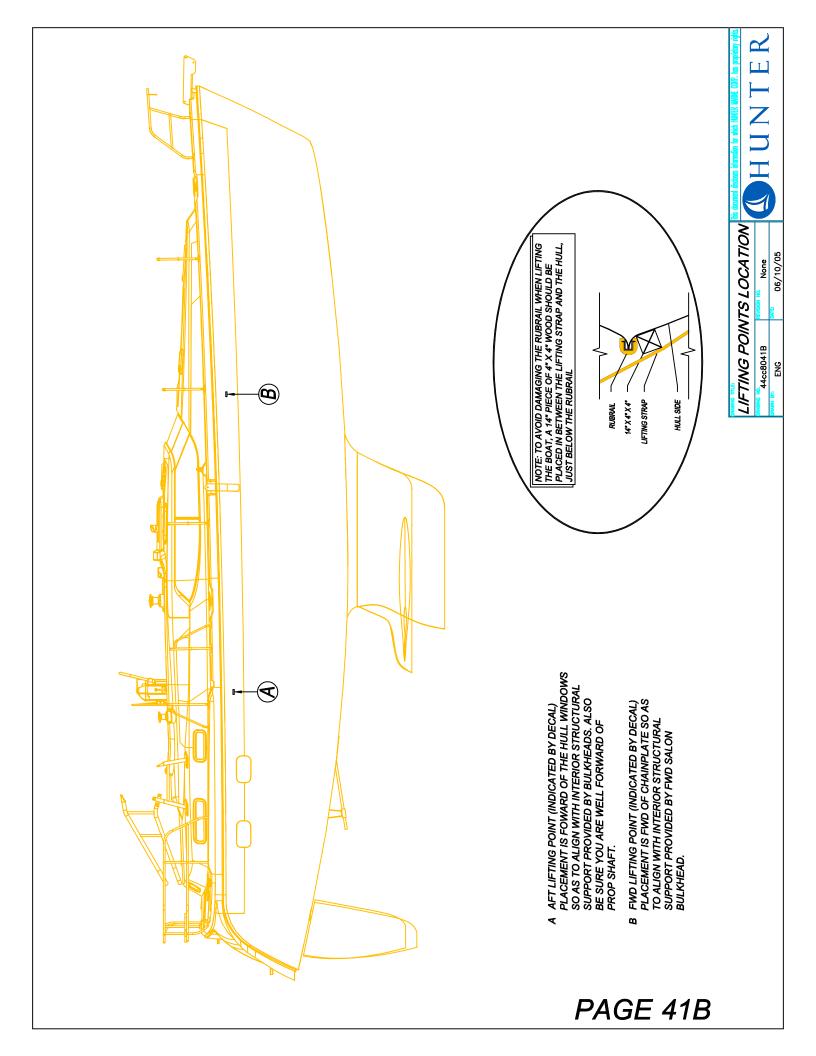
		H43CC DECK HARDWARE LIST
Item Label	Qty	Description
1	1	Bowroller Assembly
2	1	Bowrail with 4 stanchion bases
3	1	Anchorlid (RTM part)
4	2	Anchorlid Hinges
5	1	Anchorlid latch with striker plate
6	1	Windlass
7	1	Anchorwell U-Bolt
8	1	Anchorwell Cleat
9	8	Cleats
10	6	2-line Stanchion with base
11	4	Gate Stanchion with base
12	2	Outer Chainplate
13	2	Inner Chainplate
14	2	Size 60 Hatch
15	2	Size 10 Hatch
16	1	Mast Step
17	1	Compression Post
18	1	Wrap-Around Windshield plexi (8 parts)
19	1	Size 30 Hatch
20	2	Size 41 Hatch
21		
	2	Quad Organizers
22	2	Quad Sheetstoppers
23	2	Size 48 Winch Size 40 Winch
24	2	
25	4	Jib Track Lead System (1m)
26	1	Seahood (small part)
27	2	Dorade vent
28	2	Dorade deck plate
29	1	Companionway Slider Asm
30	1	Companionway Drop-Board Asm
31	1	Cockpit Drain Cover (small part)
32	1	MAMBA Steering System
33	1	Line Locker- port (RTM part)
34	1	Line Locker- stbd (RTM part)
35	1	LPG Locker liner (small part)
36	1	LPG Locker Lid (RTM part)
37	2	LPG Hinges
38	1	LPG Lid Latch
39	1	Locker Lid - port (RTM part)
40	1	Locker Lid - stbd (RTM part)
41	1	Locker Liner (small part)
42	4	Locker Lid Hinges
43	2	Locker Lid Latch
44	1	Engine Panel
45	2	Cockpit cup holder part
46	1	Cockpit Flexiteak
47	1	Arch (folding 2")
48	2	Size 3 Portlight
49	2	Size 4 Portlight
50	2	Size 1 Portlight
51	1	Emergency tiller cover plate
52	1	Transom Lid- port (RTM part)
53	1	Transom Lid- stbd (RTM part)
54	4	Locker lid Hinges
55	2	Locker lid Hinges  Locker lid Latch
56	1	Transom storage liner- port (small part)
57	1	Transom storage liner- stbd (small part)
58	1	Sternrail- port
59	1	Sternrail- stbd
60	2	Sternrail Seattop
61	1	Stainless Transom Ladder with treads
62	1	Transom Swim Ladder (16" wide)
63	1	Transom Flexiteak

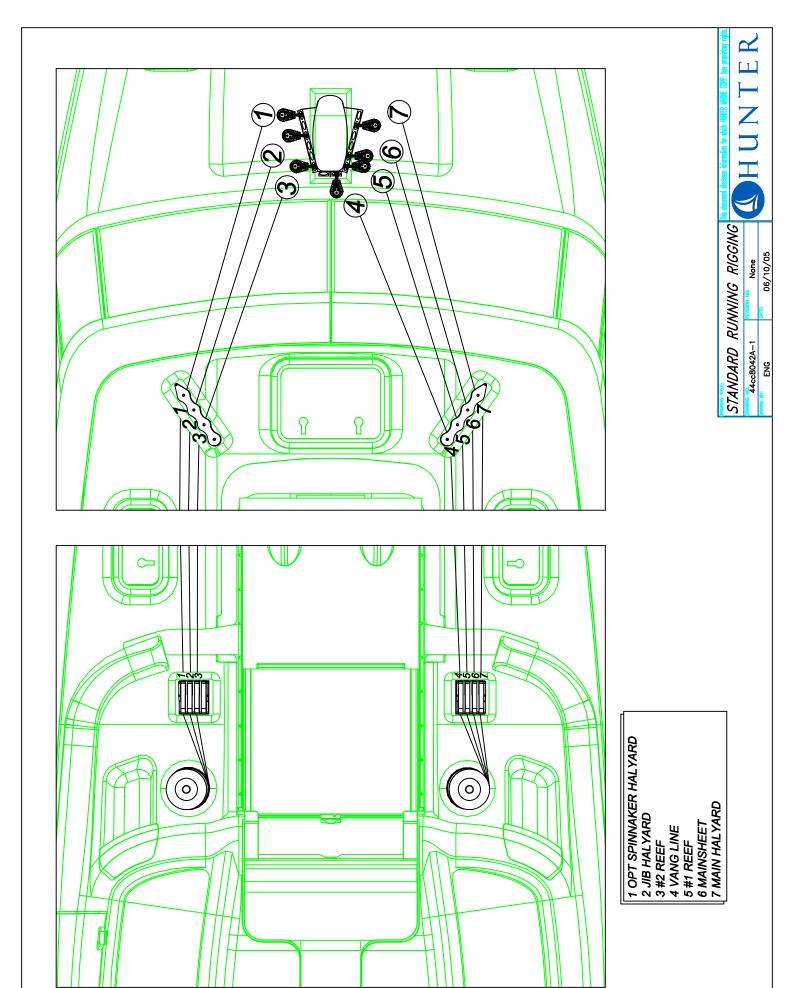


## H45cc Interior Layout

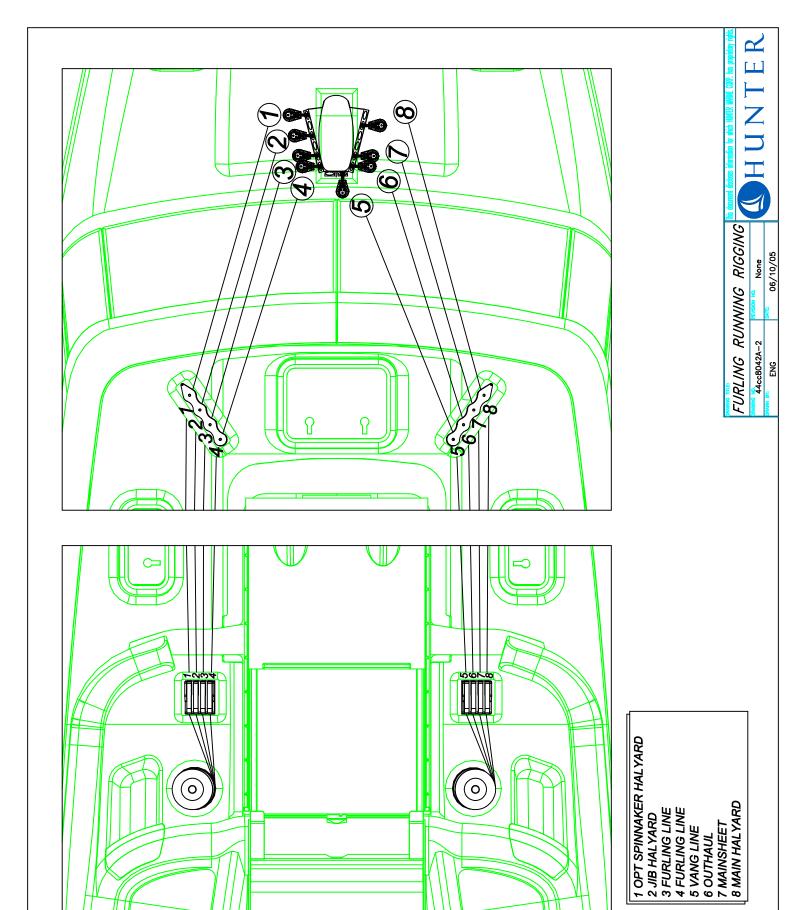


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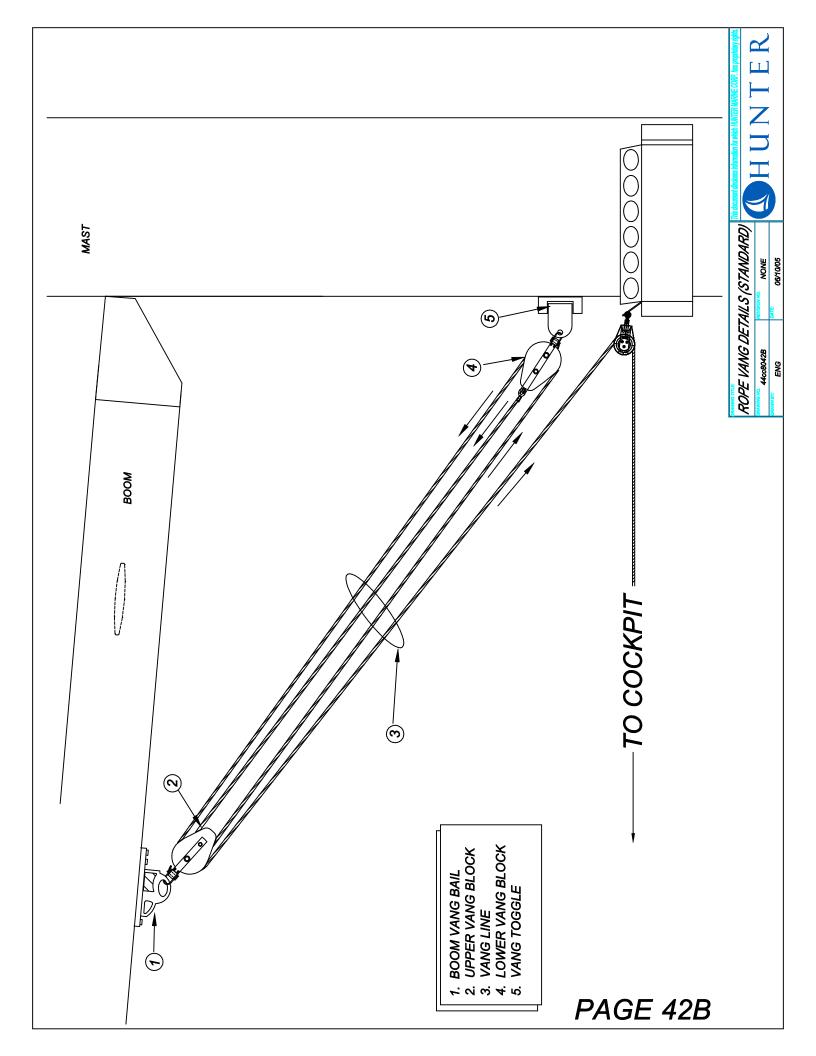


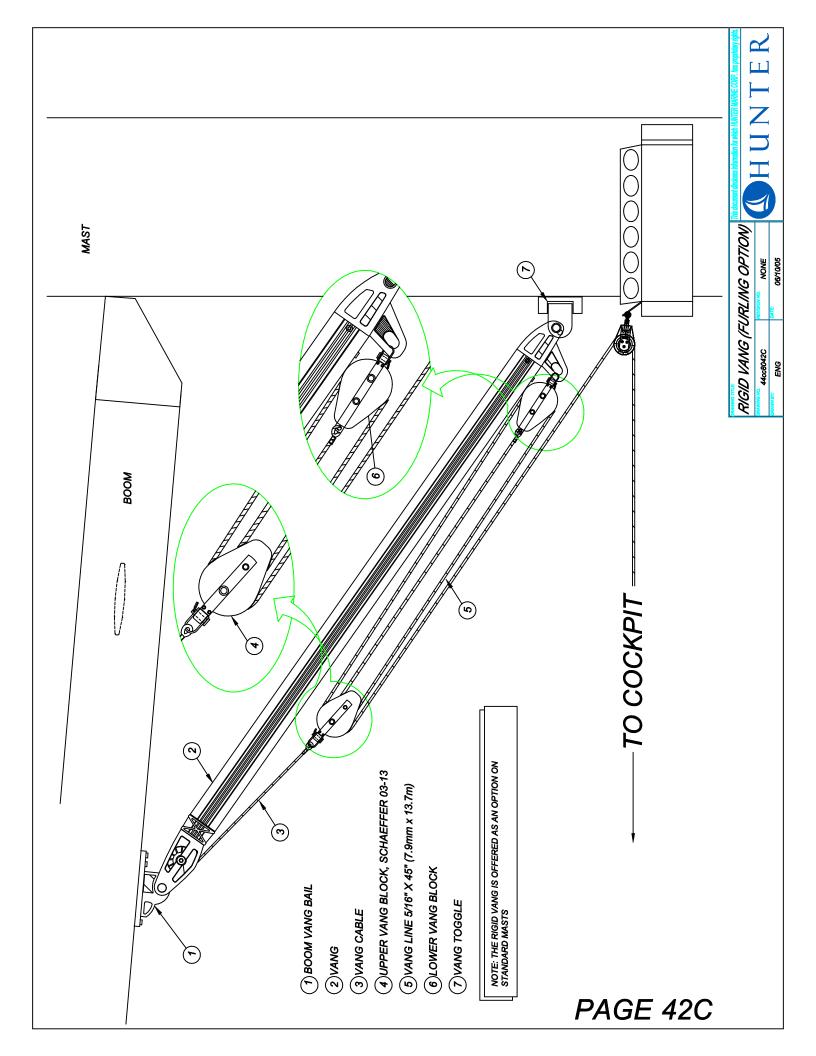


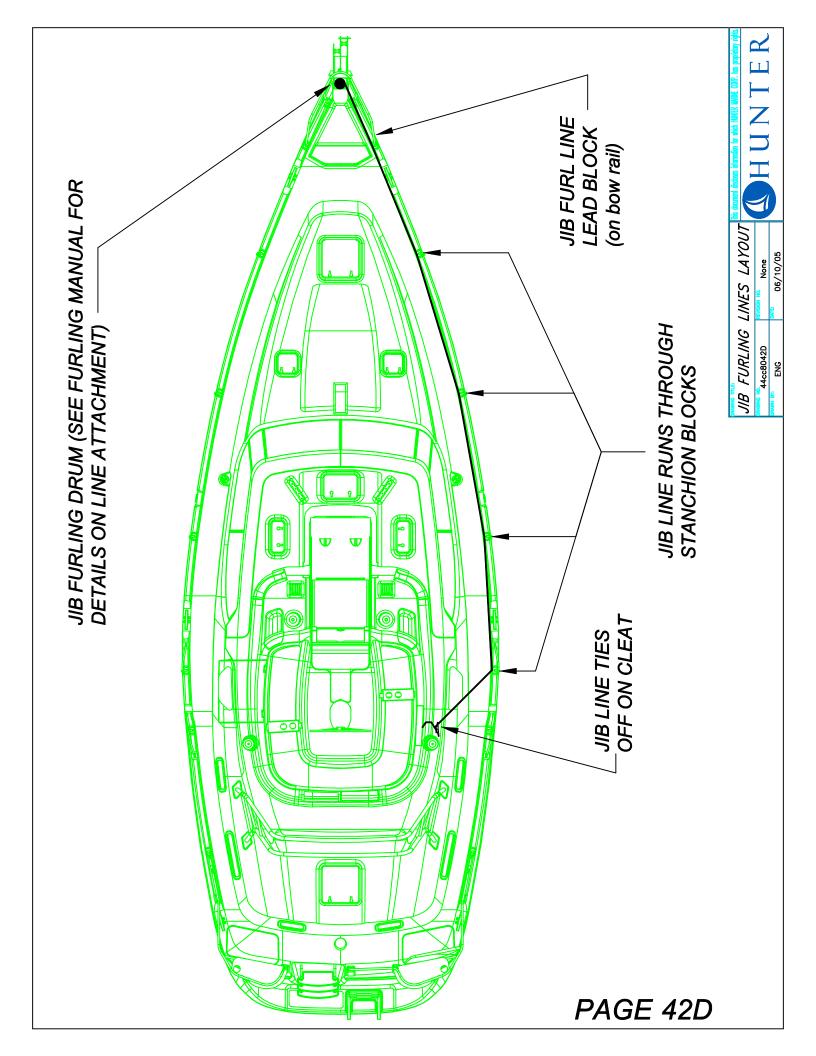
**PAGE 42A-1** 



**PAGE 42A-2** 











2 BOOM BALE AND MAINSHEET BLOCK
3 ARCH MAINSHEET BRIDLE
4 MAINSHEET
5 MAINSHEET BOOM EXIT
6 MAINSHEET SHEAVE INSIDE FWD BOOM END
7 MAINSHEET SHEAVE INSIDE FWD BOOM END
8 MAINSHEET THRU BLOCK ORGANIZERS
10 MAINSHEET THROUGH BLOCK SHEET STOPPERS ARCH BALE (MAINSHEET PURCHASE END TIE OFF)

(**®**)

**6**)

9

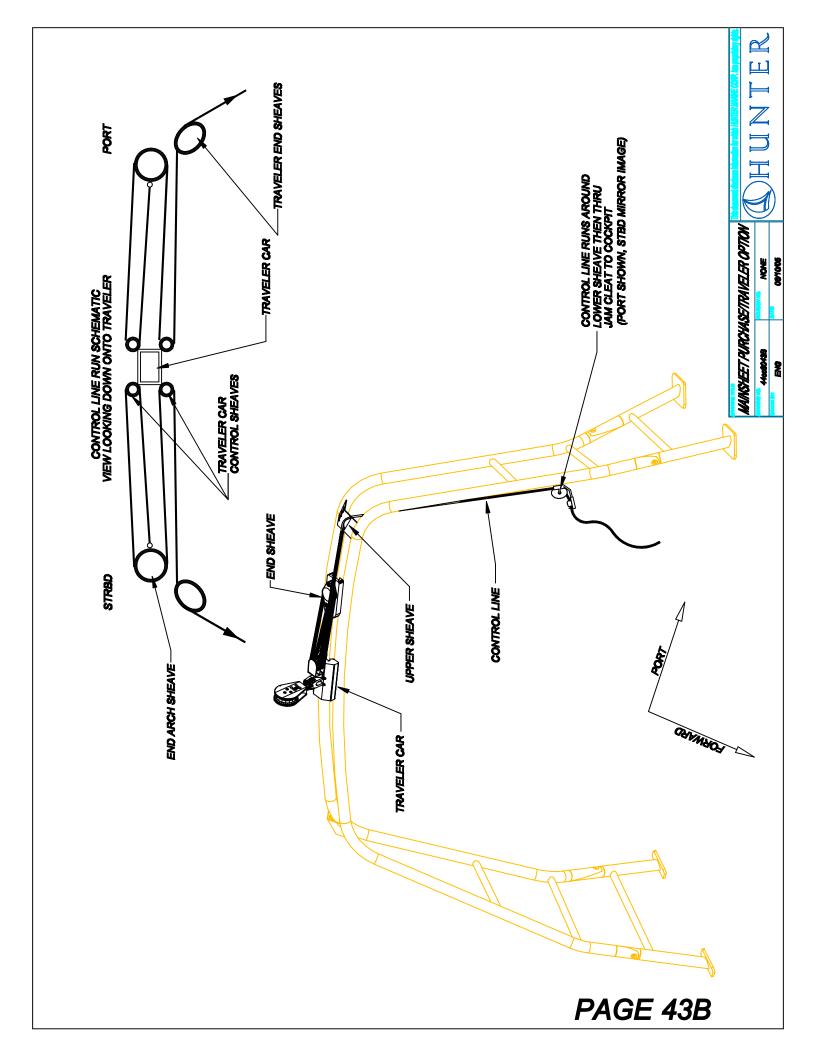
(o)

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TO WINCH

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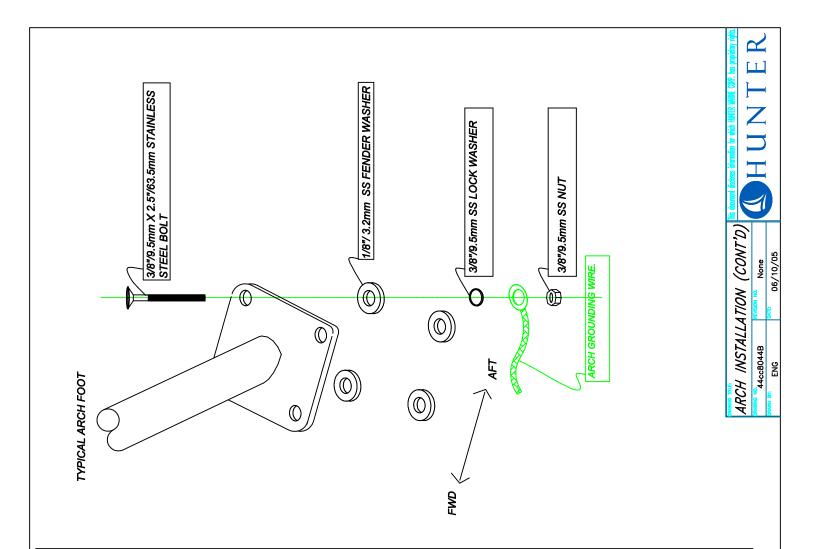
# ARCH INSTALLATION: NOTES AND TOOL LIST

- 1. IMPORTANT: READ ALL OF THE INSTALLATION INSTRUCTIONS THOROUGHLY BEFORE BEGINNING.
- 2. THIS JOB REQUIRES TWO PEOPLE. IT IS IMPORTANT THAT THE ARCH IS FIRMLY SUPPORTED UNTIL IT IS FULLY ATTACHED TO THE DECK.
  - 3. WHEN INSTALLING ARCH: TO AVOID POSSIBLE INJURY, ORIENT THE DIRECTION OF THE ARCH PRIOR TO BEGINNING THE INSTALLATION PROCESS.
    - 4. SEE BELOW FOR A LIST OF TOOLS SUGGESTED FOR THE INSTALLATION PROCESS.
- 5. IMPORTANT: REMEMBER TO CHECK ALL THE ARCH BOLTS / NUTS AFTER THE INITIAL SEA TRIAL AND RETIGHTEN AS NECESSARY



DRILL AND 3/8" DRILL BIT (TO CLEAR SEALANT **ACETONE OR LACQUER THINNER / CLEAN UP** SCREW DRIVER--PHILLIPS HEAD (LARGE P-4) 9/16" DEEP & REGULAR SOCKET TUBE OF SEALANT (3M 5200) NEVER SEIZE (BOLT LUBE) **WIRE STRIPPERS/CRIMPS** SUGGESTED TOOL LIST: 3/8" DRIVE RATCHET 9/16" WRENCH 6" EXTENSION FROM HOLES) RAZOR KNIFE CAULK GUN

This document discloses information for which HANTER WARNE CORP. has proprietary ri	A L L L L L L L L L L L L L L L L L L L		
) ( ) H	INSTALLATION	EVSION NO. None	MTE 06/10/05
	AKCH INS	DRAWING NO. 44cc8044A	DAMM BY: ENG

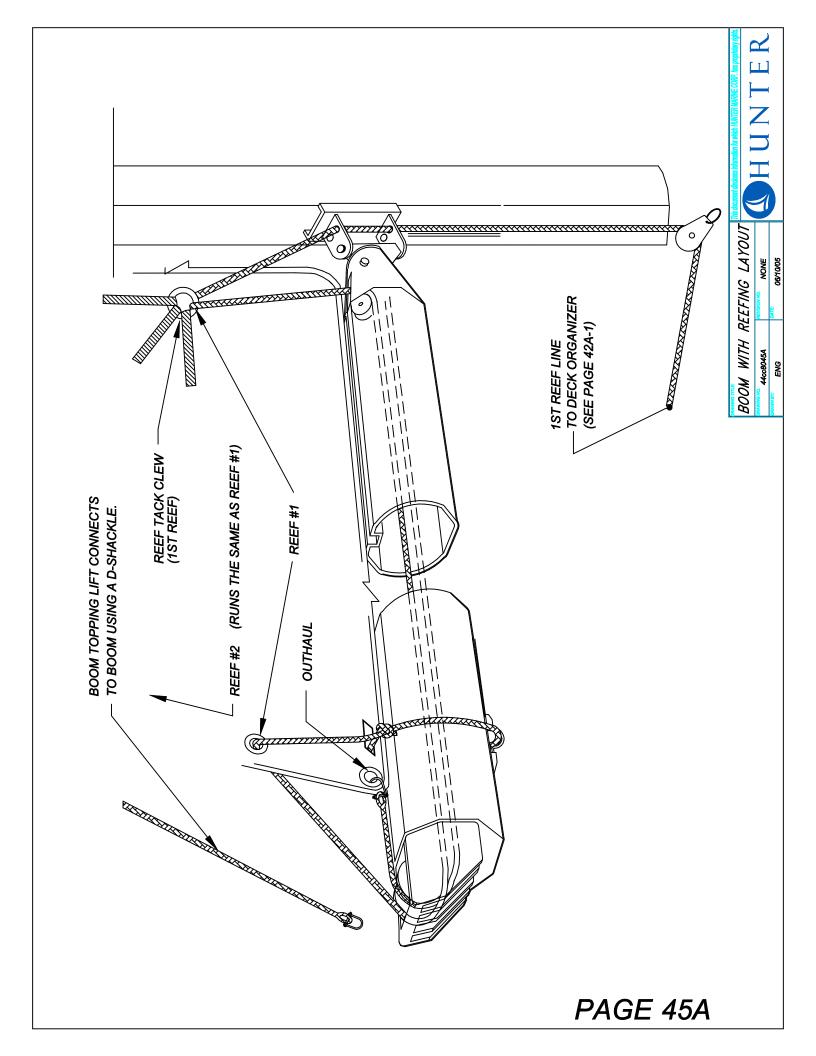


NOTE: THE ARCH SHOULD BE IN THE UPRIGHT POSITION (NOT FOLDED BACK) WHEN INSTALLING.

- WILL ENABLE EASIER ACCESS WHEN FASTENING THE ARCH BOLTS. WITH 3/8" DRILL BIT, REMOVE ANY SEALANT FROM PRE-DRILLED ARCH REMOVE ALL ACCESSORIES STOWED IN THE COCKPIT LOCKERS. THIS
- CLEAN AROUND THE MOUNTING HOLES USING ACETONE OR LACQUER THINNER
- APPLY A GENEROUS AMOUNT OF 3M 5200 SEALANT AT THE ARCH MOUNTING HOLE LOCATIONS ON THE FOOT DECK. TO AVOID POSSIBLE INJURY, ORIENT THE ARCH (LEANING BACKWARD)
  - PLACE THE ARCH ON THE DECK OF THE BOAT. ALIGN THE ARCH FOOT HOLES ON ONE SIDE(EITHER PORT OR STARBOARD) PRIOR TO PLACING IT ON THE BOAT
    - 7. INSERT 3/8"(9.5mm) STAINLESS STEEL BOLTS THRU ALL HOLES IN WITH THE CORRESPONDING PRE DRILLED DECK HOLES. ARCH FOOT AND INTO THE COAMING.
      - 8. REPEAT STEP 8 WITH OTHER ARCH FOOT.
- ACCESS THE UNDERSIDES OF THE DECK AT THE ARCH FOOT 6
- INSTALL THE 1/8" (3.2mm) FENDER WASHERS ON THE INSIDE OF THE BOLT WHICH HAS BEEN INSERTED. TIGHTEN BOLT COMPLETELY. (IT IS IMPORTANT TO APPLY A SMALL AMOUNT OF NEVER SEIZE COAMING AND INSTALL LOCK WASHER AND S.S. NUT ON THE TO THE BOLT TO PREVENT "GAULING" OF THE THREADS.) 6
  - 11. BE SURE TO INSTALL THE ARCH GROUNDING WIRE
- 12. RECHECK THE ARCH FIT ONTO THE DECK. THE HEIGHT SHOULD
  - 13. SECURELY TIGHTEN ALL THE NUTS AND BOLTS USING A CROSS TIGHTENING PATTERN. (DO NOT FORGET TO USE A SMALL MEASURE AT LEAST 6' 2" (1.88)
- 14. CLEAN EXCESS SEALANT FROM AROUND THE ARCH FEET AND **AMOUNT OF LUBRICANT FOR THE BOLTS)**
- COAMING AREAS USING ACETONE OR LACQUER THINNER.. 15. RECHECK THE BOLTS AFTER THE INITIAL SEA TRIAL AND TIGHTEN AS

## NOTE: THE BOAT IS DELIVERED TO THE DEALER WITH THE ARCH MOUNTED AND IN THE FOLDED DOWN POSITION.

- LOCATE THE COUNTERSINK MACHINE SCREWS AND TUBE OF LOCTITE.
  - WHILE LIFTING THE ARCH TO THE UPRIGHT POSTION, FEED WIRE (SHOULD BE AT THE NAV STATION IN THE CHART TABLE)
    - LOOM INTO ARCH LEG.
- ALIGN BOLT HOLES ON THE FWD ARCH CLAMPS FIRST AND START MACHINE SCREWS. APPLY LOCTITE TO THE TIP OF SCREWS ONLY.
  - AFTER ALL SCREWS ARE STARTED, GO BACK AND TIGHTEN MOUNTING HOLE LOCATIONS ON THE FOOT DECK.
- RECHECK THE BOLTS AFTER THE INITIAL SEA TRIAL AND TIGHTEN AS NECESSARY



# REEFING INSTRUCTIONS

- 1. SHACKLE TACK REEF BLOCKS TO FIRST AND SECOND REEF TACK CRINGLES.
- 2. RUN BOTH REEFING LINES AS ILLUSTRATED IN THE BOOM & REEF LAYOUT. BOTH PORTIONS OF THE REEFING LINE LEAD-ING TO THE REEFING LINE LEAD-ING TO THE REEF TACK BLOCK MUST RUN THROUGH THE GOOSE NECK ON THE AFT OF THE SPAR. THE SHORTER REEF LINE WILL BE USED ON THE FIRST REEF (STARBOARD SIDE, GREEN) THE LONGER REEF LINE ON THE SECOND REEF (PORT SIDE, RED.)
- 3. RAISE THE MAIN SAIL.
- 4. EASE THE MAINSHEET AND VANG.
- LOWER THE MAIN SAIL TO APPROXIMATELY THE FIRST REEF POSITION.
- 6. TAKE UP THE SLACK IN THE FIRST REEF LINE UNTIL THE TACK AND THE CLEW ARE DOWN TO ABOUT 2" ABOVE THE BOOM.
- 7. ADJUST THE MAIN HALYARD SO THAT THE TACK REEF BLOCK IS NOT CONTACTING THE GOOSE NECK ON THE FRONT OF THE SPAR AND IS APPLYING TENSION TO THE LUFF OF THE MAIN ABOVE THE REEF, NOT BELOW. THERE WILL BE AP-

- PROXIMATELY 6" (150mm) OF STRETCH IN THE MAIN LUFF AND MAIN HALYARD WHEN THE REEFING LINE IS TENSIONED, SO MAKE SURE THAT THIS IS ALLOWED FOR WHEN ADJUSTING THE MAIN HALYARD TO LOCATE THE TACK REEF BLOCK.
- 8. ALSO, TENSION THE REEF LINE WITH THE APPROPRIATE SELF-TAILING WINCH UNTIL THE CLEW REEF CRINGLE IS BROUGHT DOWN TO THE BOOM.
- 9. CONFIRM THAT THE TACK REEF BLOCK IS STILL CLEAR OF THE TACK SHACKLE AND THAT ONLY THE MAIN LUFF ABOVE THE REEF CRINGLE IS TENSIONED, NOT THE LUFF BETWEEN THE CRINGLE AND THE TOP STACKED SAIL SLIDE. EASE THE REEF LINE AND READJUST THE HALYARD IF NECESSARY.
- 10. MARK THE HALYARD AT THE STOPPER WITH A 1" (25mm) SINGLE BAND OF INDELIBLE MARKER INK. BY DROPPING THE HALYARD TO THIS MARK EVERY TIME A REEF IS REQUIRED THE HALYARD IS AUTOMATICALLY IN THE COR-RECT POSITION FOR THE REEF.
- 11. REPEAT THE PROCEDURE FOR THE SECOND REEF, USING DOUBLE BANDS TO MARK THE HALYARD IN THE CORRECT POSITION.

## REEFING PROCEDURE

- 1. HEAD UP INTO THE WIND.
- EASE THE MAINSHEET AND VANG.
- 3. CHECK THE TOPPING LIFT FOR ADEQUATE BOOM SUPPORT.

- 4. LOWER THE MAIN HALYARD TO THE APPROPRIATE MARK, AND SNUB THE LINE WITH THE STOPPER.
- TENSION THE REEFING LINE WITH THE SELF-TAILING WINCH UNTIL THE REEF CLEW IS BROUGHT DOWN TO THE BOOM.
   APPLY STOPPER AND TENSION THE MAIN HALYARD BACK UP.
   EASE THE TOPPING LIFT. (IF NEEDED)

## SHAKING OUT A REEF

- 1. HEAD UP INTO THE WIND.
- 2. EASE THE MAINSHEET AND VANG. RELEASE THE TENSION ON THE TOPPING LIFT. (IF NEEDED)
- RELEASE THE REEF STOPPER AND REMOVE REEF LINE FROM WINCH.
- 4. TENSION THE MAIN HALYARD TO RAISE SAIL, MAKING SURE REEF LINES RUN FREELY WHILE SAIL IS BEING RAISED. APPLY STOPPER TO MAIN HALYARD.
- 5. RE-TENSION VANG AND MAINSHEET. EASE THE TOPPING LIFT. (IF NEEDED)

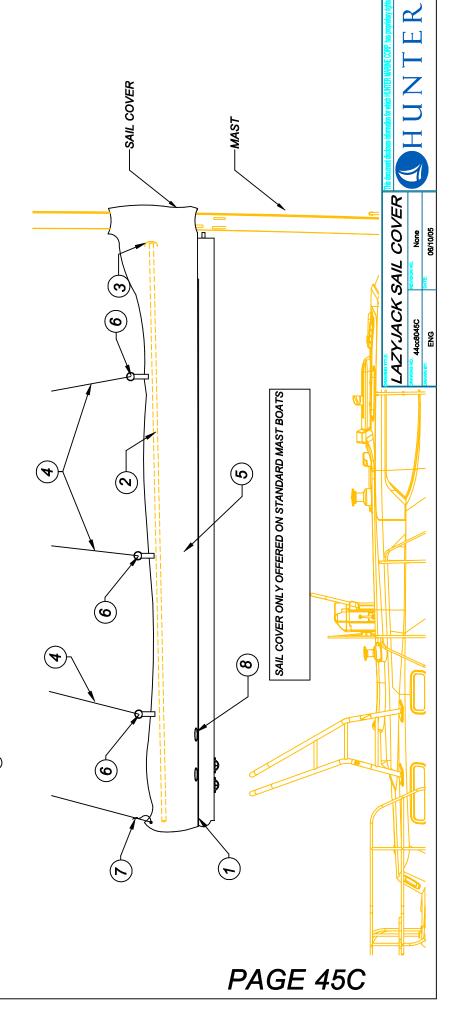


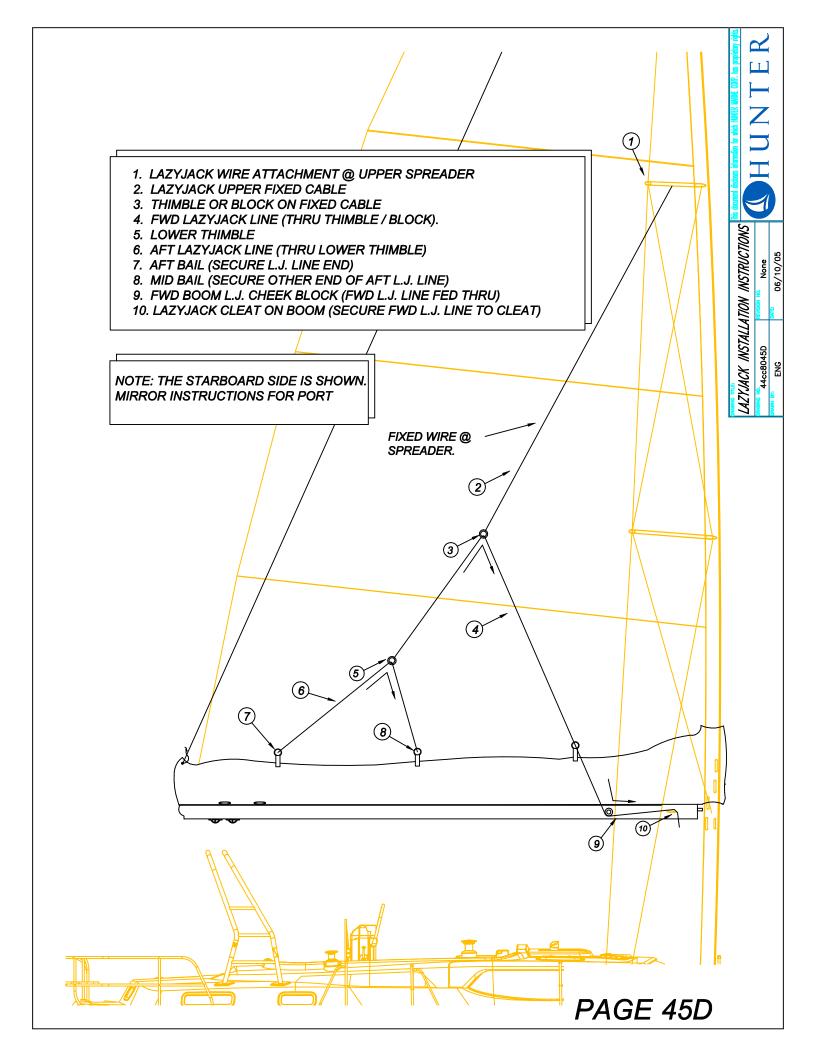
SLIDE THE BOLTROPE INTO BOOM TRACK(). START FROM THE AFT END AND MAKE YOUR WAY FORWARD.

INSTALL THE PVC BATTENS(2) INTO EACH HALF OF THE SAIL COVER. THERE ARE POCKETS(3) THAT OPEN TOWARDS THE FRONT, ON THE INSIDE OF THE COVER. SLIDE THE BATTENS INTO PLACE FROM THE FRONT, AND ROLL THE INSIDE LIP OF THE POCKET BACK IN ORDER TO HOLD THE BATTENS STATIONARY.

FEED THE LAZYJACK LINES **(**) TO THE SAIL COVER (5) AND DEAD END THE LINES TO THE FWD AND AFT BAILS (6) ON THE SAIL COVER.

TIE THE AFT END OF THE SAIL COVER UP TO THE TOPPING LIFT LINE USING THE PIECE OF STRING PROVIDED (3). USE HALF HITCH KNOTS TO SECURE THE COVER IN PLACE AT THE OUTER END OF THE BOOM. THE REEF LINES RUN OUT THROUGH THE COVER SLOTS (3) AND TIE OFF.





			HUNTER	45CC C	<b>HUNTER 45CC CONVENTIONAL</b>	IONAL			
			NNING F	SIGGING	SPECIFI	RUNNING RIGGING SPECIFICATIONS			
			Selden IV	len Mast Rig#: RRIG-2911	1-2911				
OPT/STD	) ITEM	QTY	/ Line Size	Line Type	Color	End 1	Length	gth	End 2
1 STD	MAIN HALYARD	1	12mm (1/2")	32/3	BLUE	307-047 Knot	36 m	118ft	BARE
2 STD	JIB HALYARD	1	12mm (1/2")	32/3	RED	307-047 Knot	32 m	105ft	BARE
3 STD	MAIN TRAVELER LINE	2	8mm (5/16")	16/16	WHITE	EYE	7.9 m	36ft	BARE
4 STD	MAINSHEET	1	12mm (1/2")	16/16 pl	BLUE	EYE	36 m	118ft	BARE
5 STD	REEFING LINE #1	1	12mm (1/2")	16/16 pl	GREEN	BARE	22.9 m	1197	BARE
6 STD	REEFING LINE #2	1	12mm (1/2")	16/16 pl	RED	BARE	32.7 m	107ft	BARE
7 STD	JIB SHEET	2	10mm (3/8")	16/16 pl	RED	BARE	18.5 m	1409	BARE
8 OPT	CRUISING SPINN. SHEET	2	12mm (1/2")	16/16 pl	BLACK	BARE	29.9 m	1486	BARE
9 OPT	SPINNAKER HALYARD	1	12mm (1/2")	16/16 pl	BLACK	307-338 Shackle / Knot	36.6 m	120ft	BARE
10 OPT	RODKICKER TACKLE	1	12mm (1/2")	16/16 pl	WHITE	ЭAЭ	ш 6	1408	BARE
11 STD	STD LAZY JACK WIRE	2	4 mm (5/32")	Plastic	WHITE				THIMBLE/RONS
			,	Covered 7x19		307-015 SHACKLE/THIMBLE	5.2 m	17ft	TAN BLOCK
12 STD	FIXED LAZY JACK LINE	2	10mm (3/8")	16/16 pl	WHITE	BARE	14.8 m	1 <b>3</b> 64	BARE
13 STD	BOOM TOPPING LIFT	7	10mm (3/8")	16/16 pl	WHITE	307-013 EYE	33.2 m	109ft	BARE
14 STD	ADJUSTABLE LAZY JACK LINE	2	10mm (3/8")	16/16 pl	WHITE	EYE/THIMBLE	8.7 m	1367	BARE

Selden Mast # RRIG-2793S           Selden Mast # RRIG-2793S           OPT/STD         ITEM         QTY         Line Size         Line Type         Color         End 1           1         STD MAIN HALYARD         1         10mm(3/8")         Dyneena         B/W         307-047 KNOT           2         STD JIB HALYARD         1         12mm (1/2")         16/16 pl         MHITE         EYE           4         STD MAIN TRAVELER LINE         2         8mm (5/16")         16/16 pl         MHITE         EYE           5         STD JIB SHEET         2         12mm (1/2")         16/16 pl         RED         BARE           6         OPT CRUISING SPINN. SHEET         2         12mm (1/2")         16/16 pl         BLOE         BARE           7         OPT SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE         EYE           8         STD BOOM TOPPING LIFT         1         12mm (1/2")         16/16 pl         WHITE         EYE           9         STD MAINSAIL FURLING LINE         1         10mm(3/8")         16/16 pl         WHITE         EYE           10         STD MAINSAIL FURLING LINE         1         10mm(3/8")         16/16 pl         Y					HUNTE	<b>HUNTER 45CC FURLING</b>	-ING				
Selden Mast # RRIG-2793S           ITEM         QTY         Line Size         Line Type         Color           JIB HALYARD         1         10mm (3/8")         Dyneena         B/W           JIB HALYARD         1         12mm (1/2")         16/16 pl         BLUE           MAINSHEET         2         8mm (5/16")         16/16 pl         BLUE           JIB SHEET         2         12mm (1/2")         16/16 pl         BLACK           I SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         BLACK           I SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE           D ROOMICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           D BOOM TOPPING LIFT         1         10mm (3/8")         16/16 pl         WHITE           D MAINSAIL OUTHAUL         1         10mm (3/8")         16/16 pl         WHITE				~	UNNING RIG	GING SPECIF	:ICATION	<b>o</b>			
ITEM         QTY         Line Size         Line Type         Color           D MAIN HALYARD         1         10mm(3/8")         Dyneena         B/W           D JIB HALYARD         1         12mm (1/2")         32/3         RED           D MAIN TRAVELER LINE         2         8mm (5/16")         16/16 pl         WHITE           D MAINSHEET         2         12mm (1/2")         16/16 pl         BLUE           D JIB SHEET         2         12mm (1/2")         16/16 pl         BLACK           T SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE           D RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           D BOOM TOPPING LIFT         1         10mm (3/8")         16/16 pl         WHITE           D MAINSAIL OUTHAUL         1         10mm (3/8")         16/16 pl         WHITE					Selden	Mast # RRIG-279	38				
STD         MAIN HALYARD         1         10mm(3/8")         Dyneena         B/W           STD         JIB HALYARD         1         12mm (1/2")         32/3         RED           STD         MAIN TRAVELER LINE         2         8mm (5/16")         16/16 pl         WHITE           STD         MAINSHEET         2         12mm (1/2")         16/16 pl         RED           STD         JIB SHEET         2         12mm (1/2")         16/16 pl         BLACK           OPT         SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE           STD         RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           STD         BOOM TOPPING LIFT         1         10mm(3/8")         16/16 pl         WHITE           STD         MAINSAIL FURLING LINE         1         10mm(3/8")         16/16 pl         YELLOW	OPT,	/STD	ITEM	QTY	Line Size	Line Type	Color	End 1	Length	_	End 2
STD JIB HALYARD         1 2mm (1/2")         32/3         RED           STD MAIN TRAVELER LINE         2 8mm (5/16")         16/16 pl         WHITE           STD MAINSHEET         1 2mm (1/2")         16/16 pl         BLUE           STD JIB SHEET         2 12mm (1/2")         16/16 pl         BLACK           OPT CRUISING SPINN. SHEET         2 12mm (1/2")         16/16 pl         BLACK           OPT SPINNAKER HALYARD         1 12mm (1/2")         16/16 pl         BLACK           STD RODKICKER TACKLE         1 12mm (1/2")         16/16 pl         WHITE           STD BOOM TOPPING LIFT         1 10mm (3/8")         16/16 pl         WHITE           STD MAINSAIL OUTHAUL         1 10mm (3/8")         16/16 pl         WHITE           STD MAINSAIL FURLING LINE         1 10mm (3/8")         16/16 pl         YELLOW	_	STD	MAIN HALYARD	1	10mm(3/8")	Dyneena	B/W	307-021 EYE	37 m	121ft	BARE
STD         MAIN TRAVELER LINE         2         8mm (5/16")         16/16 pl         WHITE           STD         MAINSHEET         1         12mm (1/2")         16/16 pl         BLUE           STD         JIB SHEET         2         12mm (1/2")         16/16 pl         RED           OPT         CRUISING SPINN. SHEET         2         12mm (1/2")         16/16 pl         BLACK           OPT         SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE           STD         RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           STD         BOOM TOPPING LIFT         1         10mm(3/8")         16/16 pl         WHITE           STD         MAINSAIL FURLING LINE         1         10mm(3/8")         16/16 pl         YELLOW	2	STD	JIB HALYARD	1	12mm (1/2")	32/3	RED	307-047 KNOT	33 m	108ft	BARE
STD         MAINSHEET         1 (1/2")         16/16 pl         BLUE           STD         JIB SHEET         2         12mm (1/2")         16/16 pl         RED           OPT         CRUISING SPINN. SHEET         2         12mm (1/2")         16/16 pl         BLACK           OPT         SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         BLACK           STD         RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           STD         BOOM TOPPING LIFT         1         10mm(3/8")         16/16 pl         WHITE           STD         MAINSAIL OUTHAUL         1         10mm(3/8")         16/16 pl         YELLOW	3	STD	MAIN TRAVELER LINE	2	8mm (5/16")	16/16 pl	WHITE	3A3	15.8 m	52ft	BARE
STD JIB SHEET         2         12mm (1/2")         16/16 pl         RED           OPT CRUISING SPINN. SHEET         2         12mm (1/2")         16/16 pl         BLACK           OPT SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE           STD RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           STD BOOM TOPPING LIFT         1         10mm(3/8")         16/16 pl         WHITE           STD MAINSAIL OUTHAUL         1         10mm(3/8")         16/16 pl         YELLOW	4	STD	MAINSHEET	1	12mm (1/2")	16/16 pl	BLUE	EYE	37 m	121ft	BARE
OPT CRUISING SPINN. SHEET         2         12mm (1/2")         16/16 pl         BLACK           OPT SPINNAKER HALYARD         1         12mm (1/2")         16/16 pl         WHITE           STD RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           STD BOOM TOPPING LIFT         1         10mm(3/8")         16/16 pl         WHITE           STD MAINSAIL OUTHAUL         1         10mm(3/8")         16/16 pl         YELLOW	2	STD	JIB SHEET	2	12mm (1/2")	16/16 pl	RED	BARE	18.2 m	58ft	BARE
OPT SPINNAKER HALYARD         1 2mm (1/2")         16/16 pl         BLACK           STD RODKICKER TACKLE         1 12mm (1/2")         16/16 pl         WHITE           STD BOOM TOPPING LIFT         1 10mm(3/8")         16/16 pl         WHITE           STD MAINSAIL OUTHAUL         1 10mm(3/8")         16/16 pl         YELLOW	9	OPT	CRUISING SPINN. SHEET	2	12mm (1/2")	16/16 pl	BLACK	BARE	29.9 m	38ft	BARE
STD RODKICKER TACKLE         1         12mm (1/2")         16/16 pl         WHITE           STD BOOM TOPPING LIFT         1         10mm(3/8")         16/16 pl         WHITE           STD MAINSAIL OUTHAUL         1         10mm(3/8")         16/16 pl         WHITE           STD MAINSAIL FURLING LINE         1         10mm(3/8")         16/16 pl         YELLOW	7	OPT	SPINNAKER HALYARD	1	12mm (1/2")	16/16 pl	BLACK	307-338 Shackle / Knot	36.6 m	120ft	BARE
STD BOOM TOPPING LIFT         1 0mm(3/8")         16/16 pl         WHITE           STD MAINSAIL OUTHAUL         1 10mm(3/8")         16/16 pl         WHITE           STD MAINSAIL FURLING LINE         1 10mm(3/8")         16/16 pl         YELLOW	8	STD	RODKICKER TACKLE	1	12mm (1/2")	16/16 pl	WHITE	3A3	12 m	39ft	BARE
STD MAINSAIL OUTHAUL 10mm(3/8") 16/16 pl WHITE STD MAINSAIL FURLING LINE 1 10mm(3/8") 16/16 pl YELLOW	6	STD	BOOM TOPPING LIFT	1	10mm(3/8")	16/16 pl	WHITE	307-021 EYE	36 m	118ft	BARE
STD MAINSAIL FURLING LINE 1   10mm(3/8") 16/16 pl   YELLOW	10	STD	MAINSAIL OUTHAUL	1	10mm(3/8")	16/16 pl	WHITE	EYE	25 m	82ft	BARE
	11	STD	MAINSAIL FURLING LINE	-	10mm(3/8")	16/16 pl	YELLOW	BARE	13.4 m	44ft	BARE

## H45cc B&R RIG WITH STRUTS DESCRIPTION

The B&R rig, utilized on the Hunter 45cc, eliminates the need for a backstay to allow for a more efficient mainsail shape. Fixed backstays are commonly being designed out of today's performance-oriented boats to allow the mainsail to incorporate a full roach design - a more aerodynamic shape both for racing and cruising performance.

To accomplish this, the B&R rig has 30 degree swept spreaders, creating 120 degrees between each rigging point. This tri-pod arrangement has excellent strength for sailboat rigs, and has been used for years to support huge radio towers.

The latest advancement to the B&R rig is the addition of mast struts. These struts stabilize the lower section of the mast, allowing compression loads to be spread, reducing the point loading at the mast base. They also create a strong point for the boom and spinnaker pole loadings. The struts function also allow us to use a smaller mast section reducing weight aloft to decrease the heeling and pitching moments, making for a more comfortable ride. Additionally, they provide a secure handhold when going forward.

The struts perform an important structural function, therefore never sail your boat without the struts properly fitted. If your 45cc is equipped with the in-mast furling option, the mast is a larger section size and the struts are not utilized.

Additional support is given to the B&R rig (and is unique to it) with the addition of reverse diagonal rigging. For example, the diagonals that you see beginning by the top of the mast strut, ending at the tip of the spreader, supports and stabilizes the upper section of the mast

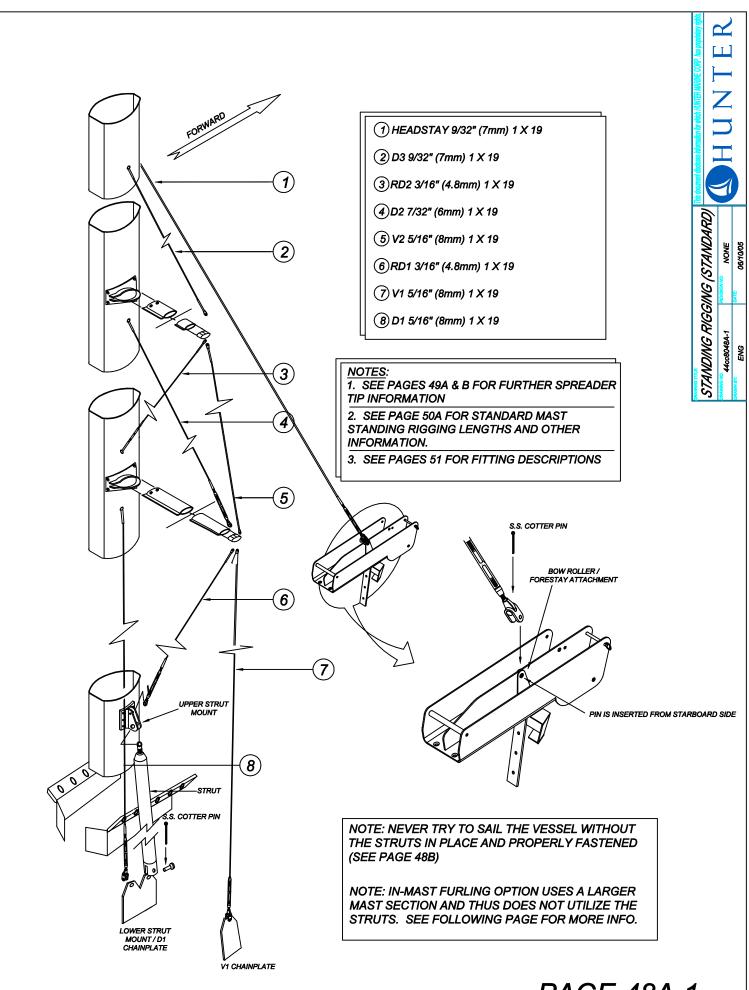
as it creates a triangle with the upper shroud.

The B&R rig is designed to be pre-bent to further add rigidity to the mast section and eliminate the need for adjustable rigging (like backstay adjusters). This design should prove more reliable than a rig with adjustable backstays or runners, as there is less chance for error.

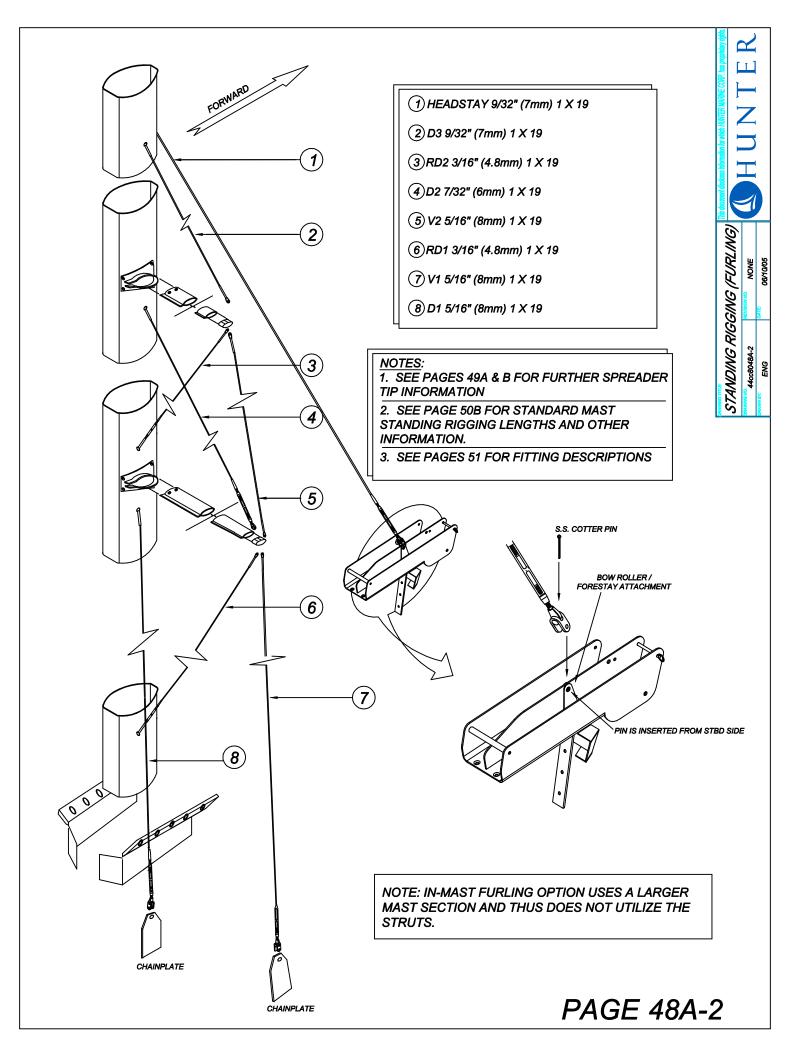
The large main, small jib, sail plan on the 45cc also eliminates the need for large overlapping headsails (genoas), as the driving power comes from the much improved shape and size of the mainsail. This allows for an easier tacking small jib, creating good performance and more comfortable sailing as it is less work for the crew.

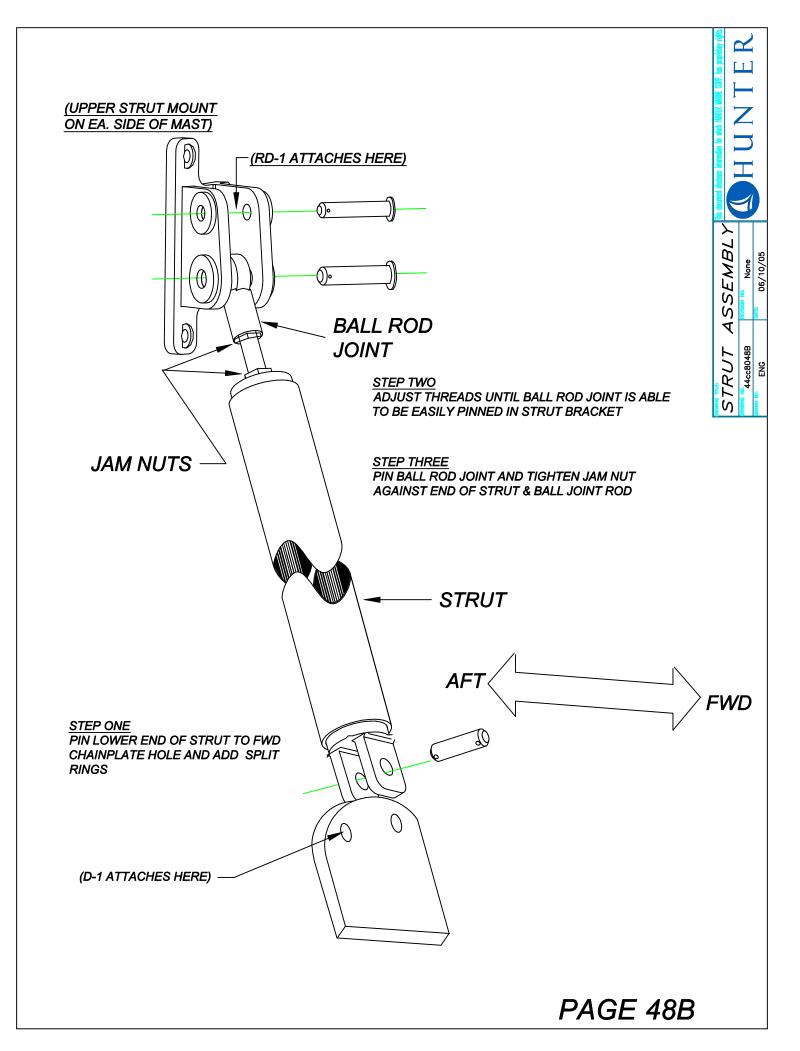
As the large main is creating additional mainsheet and leach loading, Hunter has included a cockpit arch whereby the mainsheet and leech loads are directed to the strong part of the boom (the outboard end) and is located at the heaviest loading point of the mainsail. The cockpit arch serves addition safety and comfort functions as handholds and cockpit canvas attachment points.

B&R rigs have been used on thousands of sailboats, and we are proud to incorporate this successful design on your new Hunter.

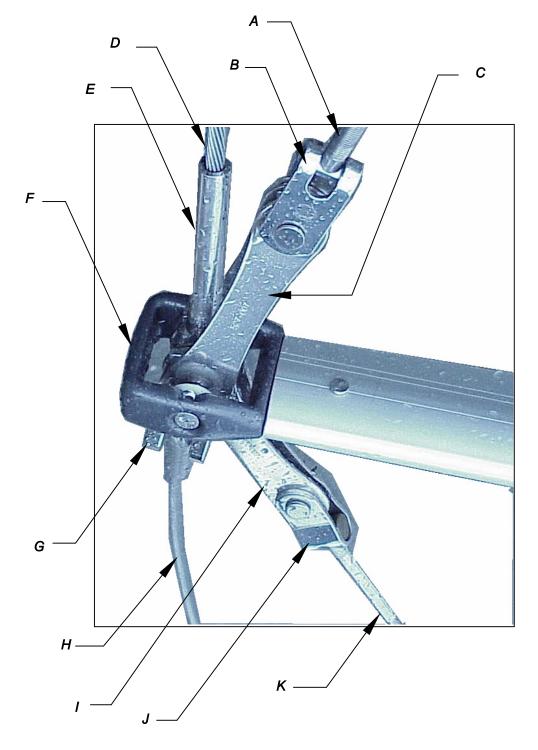


**PAGE 48A-1** 

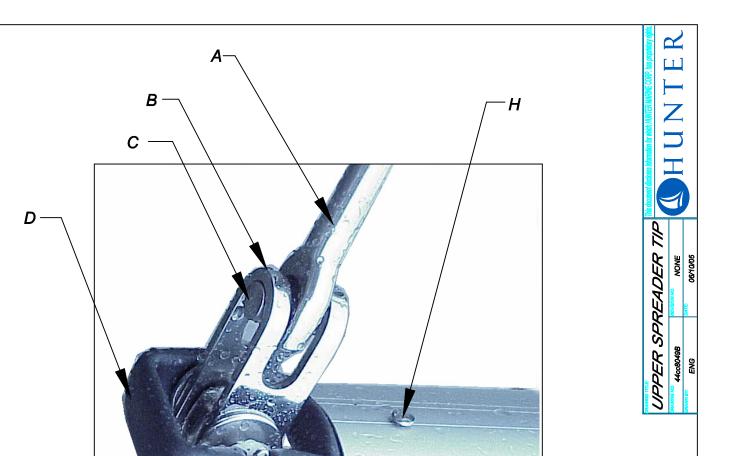








Α	D2 stem T	G	jaw toggle
В	jaw toggle	Н	V1
С	link plates	1	link plates
D	V2 .	J	jaw toggle
E	marine eye	Κ	RD1 stem T
F	spreader tip casting		



A D3 marine eye

B jaw toggle

C 1/2" (1.27cm) pin

D spreader tip casting

E 3/8" (.95cm) pin

F link plates

E

G

G marine eye stem

H spreader tip casting fastener

## **HUNTER 45CC CONV** STANDING RIGGING **WIRE SIZE FITTINGS ITEM** QTY **OVERALL LENGTH** 1 D3 2 3/8" | 10 mm | EYE 308-365 13 ft. 10 7/8" 4240 mm FORK 308-318-01 2 V2 2 3/8" 10 mm EYE 308-365 14 ft. 4270 mm EYE 308-365 13 ft. 6 3/8" 3 D2 2 9/32" 7 mm T-TERMINAL 308-325 4125 mm STD/FORK TB 174-324-56 3/16" 4 RD2 2 5 mm FORK 308-313-01 13 ft. 10 1/2" 4230 mm STD/T TB 174-473-21 2 5 V1 3/8" 10 mm | FORK 308-318-01 19 ft. 5 3/8" 5930 mm STD/TGLE TB 174-327-59 3/8" 6 D1 2 10 mm | EYE 308-365 18 ft 10 3/8" 5750 mm STD/TGLE TB 174-326-60 RD1 2 3/16" 5 mm FORK 308-313-01 12 ft. 6 3/8" 3820 mm STD/TGLE TB 174-473-21 8 FORESTAY 5/16" 8 mm FURLEX 308-15 49 ft. 2 1/2 15000 mm

1. ALL ADJUSTABLE RIGGING IS DIMENSIONED WITH TURNBUCKLES 2/3 OPEN.

039-027-61

SRIG-2794

2. LENGTHS <u>DO NOT</u> INCLUDE SPREADER TIP LINKAGE.

## **HUNTER 45CC FURL** STANDING RIGGING **WIRE SIZE FITTINGS** QTY **OVERALL LENGTH** 3/8" 10 mm EYE 308-365 15 ft. 2 1/4" 4630 mm FORK 308-318-01 15 ft. 1" 3/8" 10 mm EYE 308-365 4595 mm EYE 308-365 14 ft. 7 1/2" 9/32" 7 mm T-TERMINAL 308-325 4455 mm STD/FORK TB 174-324-56 3/16" 5 mm FORK 308-313-01 14 ft. 10" 4520 mm

17 ft. 3/8"

16 ft. 8 3/4"

14 ft. 6 7/8"

49 ft. 2 1/2"

5190 mm

5100 mm

4440 mm

15000 mm

STD/T TB 174-473-21

STD/TGLE TB 174-327-59

STD/TGLE TB 174-326-60

FORK 308-313-01

FURLEX 308-15

039-027-61

STD/T TB 174-473-21

**SRIG-2793** 

10 mm | FORK 308-318-01

10 mm | EYE 308-365

5 mm

8 mm

**ITEM** 

D3

V2

D2

RD2

V1

D1

RD1

8 FORESTAY

2

2

2

2

2

2

2

3/8"

3/8"

3/16"

5/16"

1

2

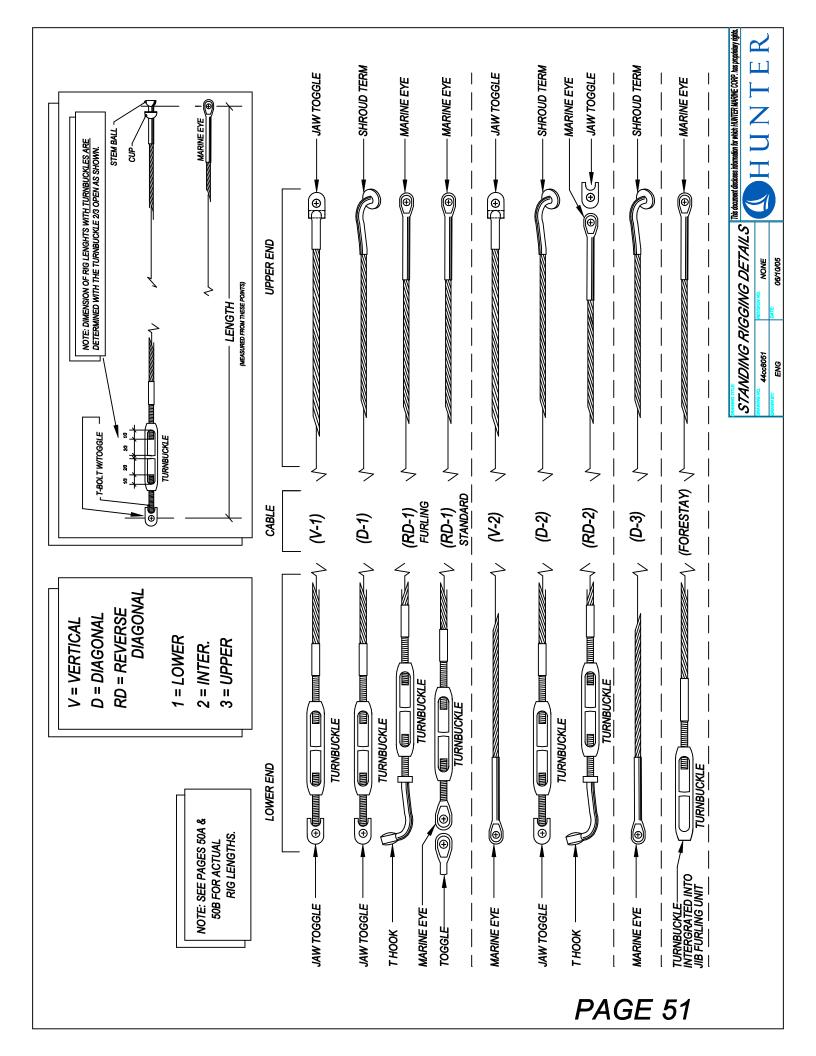
3

4

5

6

<sup>2.</sup> LENGTHS DO NOT INCLUDE SPREADER TIP LINKAGE.



## **TUNING THE H45cc B&R RIG**

The easiest method for tuning the B&R rig is to perform step one as follows before the mast is stepped, with it lying aft side down on two sawhorses. Begin with all rigging slack. If the mast is already stepped, loosen all the rigging, and then proceed to step one.

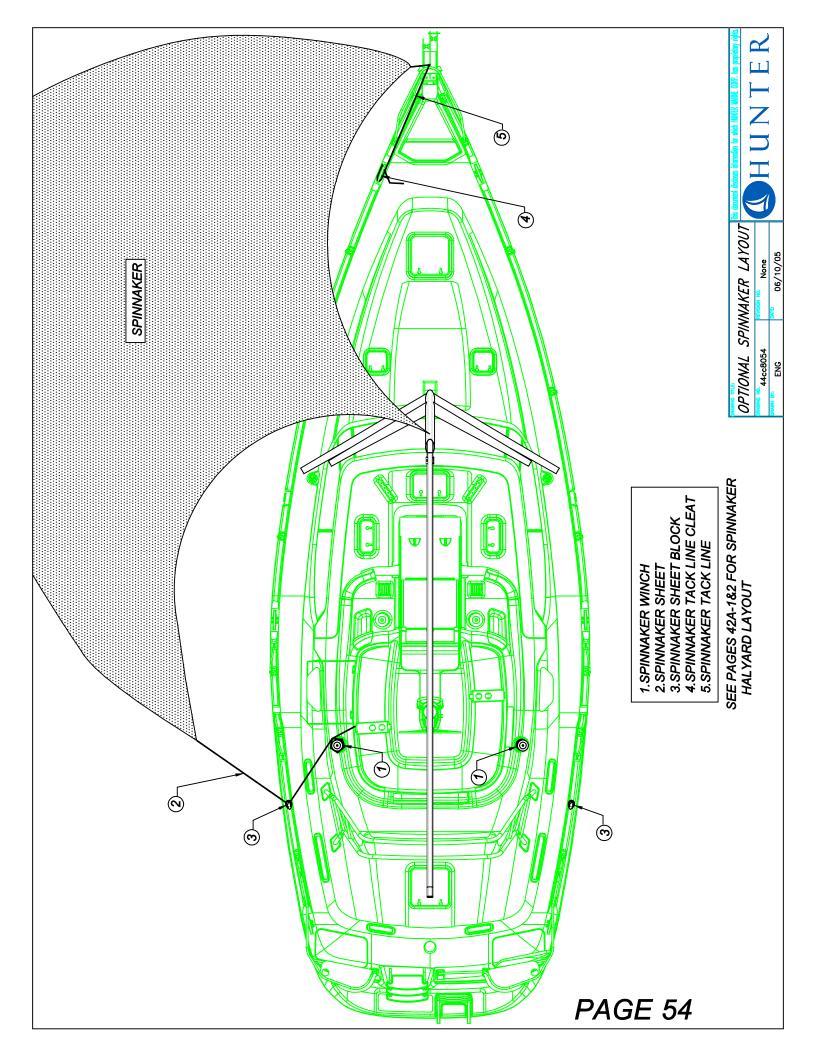
- 1. Start with all the rigging slack. Then induce the mast bend by tightening the reverse diagonals (diamonds). Measure the bend by tensioning a line or the main halyard between the masthead and the gooseneck. . The maximum amount of bend should be no more than 1% of the length of "P" for the standard rig and no more than 2" [50mm] for the furling mast. Measured perpendicular from the aft face of the mast to the halyard at the deepest part of the bend. It can be less than that based on the sail shape and your own preference. The bend should also be evenly distributed along the mast to give a smooth shape. Keep in mind that bending a furling mast may make it more difficult to furl and will not do much to flatten the sail as in a standard rig. It is very important that the mast also be straight from side to side at this time. Tighten or loosen the reverse diagonals to achieve this.
- 2. Step the mast with all shrouds attached but with the turnbuckles completely loosened (if the mast was not already stepped).
- 3. Attach the jib halyard to a cleat on the bow to support the mast in a raked position (the masthead should be about 2'-0" [~6cm] behind the step). Attach the verticals and tighten them until you can just see the hole for the cotter pin in the turnbuckle. Tighten the jib halyard until you can attach the forestay. At this point the masthead should be raked so that a weight hung on the main halyard hangs about 1' behind the mast step.
- 4. Use the main halyard to check that the mast is centered from side to side. Pull it tight and mark the halyard next to the verticals chainplate. Now do the same to the other side to see if the marks line

- up. If not, tighten and/or loosen the verticals until the marks line up. Once the masthead is centered, begin tightening the verticals until the turnbuckles are approximately half closed. While tightening the verticals you may notice the bend in the mast increasing. Now you can tighten the lowers, which will tend to straighten the lower part of the mast. Be sure to tighten port and starboard sides evenly.
- 5. Now you should tighten the headstay until it is approximately half closed as well. This should induce the appropriate amount of headstay tension. Never use anything more than a pair of wrenches to tighten your rigging. If you use an extended piece of pipe on the handle of a wrench you can over tighten the rigging and do damage to the mast or rigging.
- 6. On the Hunter 45cc it is necessary to go up the mast in a bosun's chair to tighten the number 2 diagonal shroud (D2 or intermediate shroud). Always use caution when "going aloft". You should always use a mountain climbing harness or Bosun's Chair intended for this use. Always tie into the harness with the halyard using a bowline and then secure the shackle as a back up as the knot is more reliable than a mechanical fastener. The person hoisting you aloft should keep the halyard stopper closed to prevent falls. Good communication between the two of you is also important. Tighten the D2 until it has just become tight and then add two complete turns. While at the first spreader, look up the back of the mast to see if it is straight (rather than bent from side to side). If it is not straight then adjust the appropriate D2 to straighten it.
- 7. Have the person on deck carefully lower you. They should keep the halyard wrapped at least twice around the winch and should always have one hand able to stop the halyard from running free. Once on deck look up the back of the mast and see if it is straight (rather than bent from side to side). If not then adjust the lowers (D1) until it is.

## TUNING THE H45cc B&R RIG

- 8. If you have the standard rig you need to attach the struts at this time. Attach the lower end of the strut to the smaller hole in the chainplate. Adjust the length by turning the ball joint bearing in the upper end of the strut until the holes in the pin can be attached. It is normal to have some play between the strut and the chainplate and strut bracket
- 9. The final test is to go sailing in 10-15 knots of wind. If when sailing upwind, the shrouds on the leeward side are slack then tighten them to remove about half the slack keeping note of the number of turns. Then tack and do the same to the other side. Do this until you are happy with the tension and the leeward side does not get loose when the boat is heeled. Now sight up the mast to be sure it is still relatively straight from side to side. If it is not then adjust to appropriate rigging to correct it. For example: if the mast is straight until the upper spreader and then hooks to the windward side then you will have to revisit steps 6 and 7 above. Remember to always tighten the leeward shroud, tack and tighten the new leeward shroud the same amount. This prevents damage to the turnbuckles and is also much easier to do. Keep in mind it is also possible to have something too tight such as a diagonal shroud.
- 10. At this point you should have adequate headstay tension. The sails are built for an average of 14" [350mm] of headstay sag, possibly more or less depending upon light or heavy air. The bend in the standard mast should be about 1%(maximum) of "P" and 2" [25mm] (maximum) in the furling mast and it should be nearly straight from side to side when sailing upwind. If any of these are not true then revisit the appropriate step above to correct it. If the sag in the headstay is too much then adding tension to the verticals will fix it.
- 11. Once the rig is tuned you should make sure to add the cotter pins to all the rigging bending back the ends and taping them to prevent snagged lines, sails and fingers.

Remember that rigging, like everything else, can age. As it gets older it may need to be replaced. The frequency for which this becomes necessary depends on the climate and conditions in which the boat is sailed. For example: if you sail in the Caribbean it should be replaced every 2-3 years compared to every 10 for the great lakes. You should consult a professional rigger for advice.



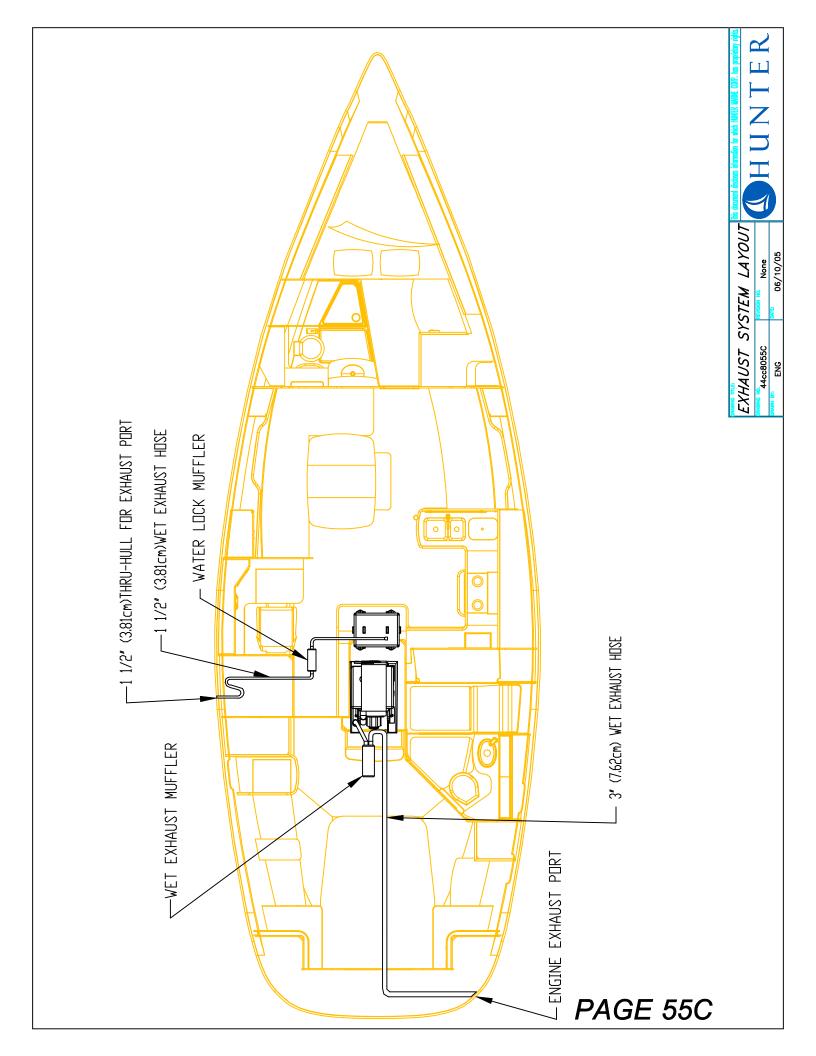
# ENGINE OPERATING INSTRUCTIONS:

- (7) FILL DIESEL TANK WITH DIESEL FUEL
- ② CHECK ENGINE OIL LEVEL (SEE YANMAR MANUAL)
- ③ OPEN ENGINE RAW WATER PICKUP SEACOCK (SEE PAGES 60A-1)
- (4) TURN ON "START BATTERY SELECTOR SWITCH" (LOCATED AT THE NAVIGATION STATION)
- NOTE" IF ENGINE APPEARS TO HAVE TROUBLE STARTING, SEE YANMAR MANUAL (5) TURN KEY TO START POSITION, RELEASE WHEN ENGINE STARTS
- UNTIL ENGINE STOPS RUNNING THEN TURN KEY TO OFF POSITION. (6) TO SHUT ENGINE DOWN: PUSH RED BUTTON AT KEY SWITCH PANEL

WARNING: DO NOT LEAVE AFT HATCHES/ PORTS OPEN WHILE ENGINE IS RUNNING. THERE EXISTS A POSSIBILITY OF EXHAUST POISONING, OR EVEN DEATH. SEE PAGE 63D-1 FOR OPTIONAL GENERATOR OPERATING INSTRUCTIONS



PAGE 55A



### FRESH WATER SYSTEM OPERATION:

- (1) FILL TANK WITH FRESH WATER (SEE PAGE 60B FOR FILL LOCATIONS)
- 2)OPEN ISOLATOR VALVE (SEE PAGE 57B FOR LOCATION)
- (3)OPEN DESIRED MANIFOLD VALVES (SEE PAGE 57C)
- 'FLIP" MAIN PANEL BREAKER @ BATTERY SWITCH TO THE "ON" POSITION 4)TURN BATTERY SELECTOR SWITCH TO THE "ON" POSITION
- (5) TURN ON "WATER PUMP" SWITCH ON CONTROL PANEL @ NAV STATION

(PANEL LOCATED AT THE MAIN SALON BUNK)

- 6)"HOT WATER" IS ATTAINABLE BASICALLY IN TWO WAYS...
- A)BY HEATING THE WATER THRU THE ENGINE HEAT EXCHANGER UNIT
- B BY SUPPLYING 110V.A.C. BY "DOCKSIDE SHORE POWER".
- 7)TO HEAT BY "ENGINE" SEE PAGE 55A FOR ENGINE OPERATING INSTRUCTIONS.

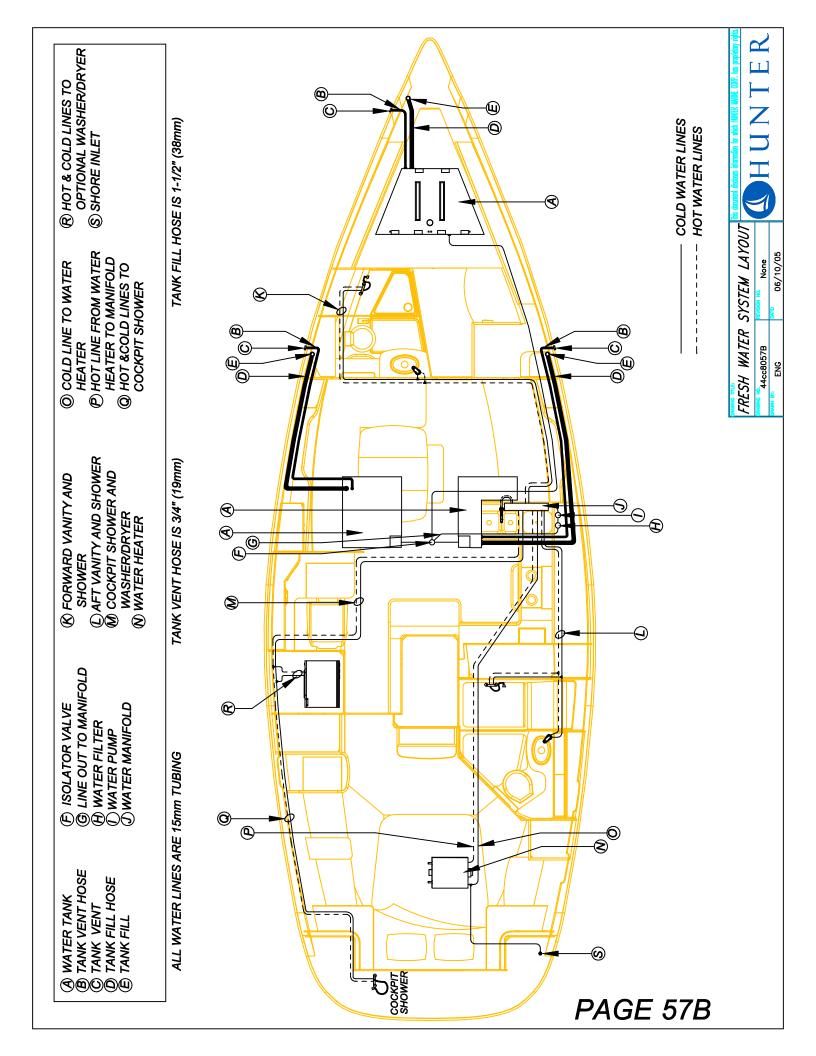
NOTE: WHEN COOLANT IS INSTALLED, BLEED AIR FROM HEAT EXCHANGER LINES TO WATER HEATER. CRANK ENGINE, OPEN BLEEDER VALVE (SEE PAGE 55B) UNTIL AIR IS GONE FROM LINES

- 8)TO HEAT BY "SHORE POWER"
- A HOOK UP SHORE POWER CABLE/S
- (B) TURN ON A.C. MAIN BREAKER LOCATED IN AFT CABIN
- © TURN ON "WATER HEATER" SWITCH ON CONTROL PANEL

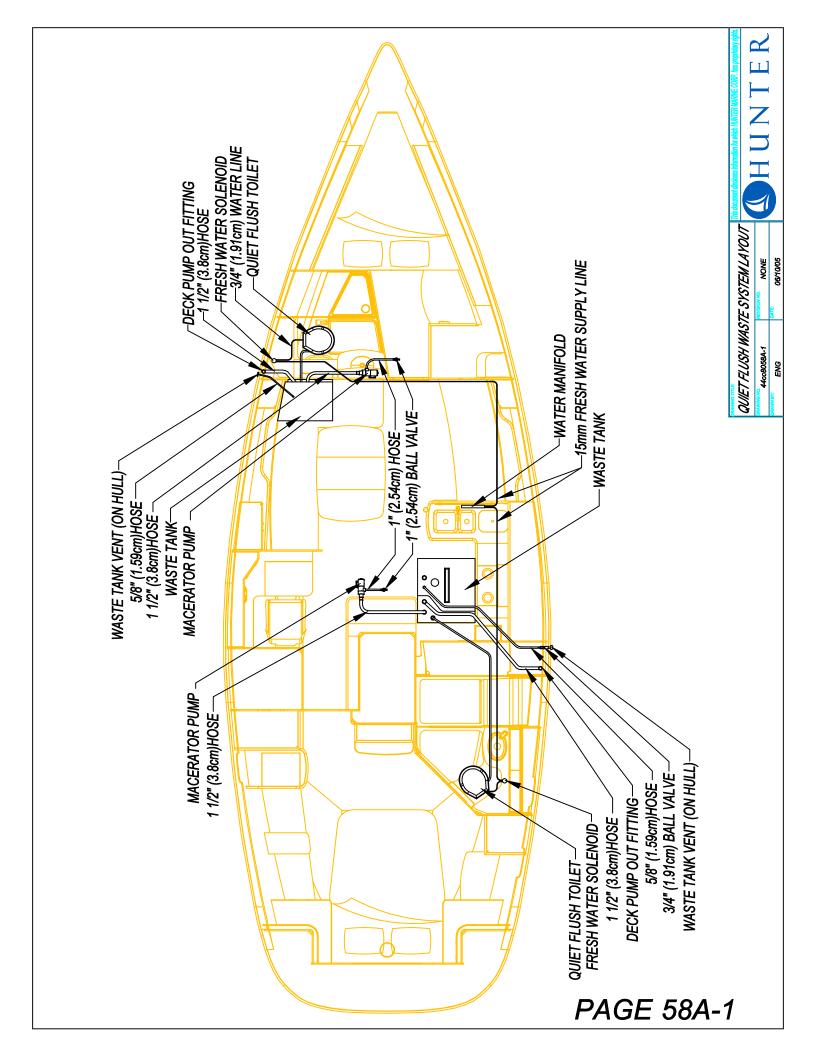
BEFORE APPLYING POWER TO UNIT, TO AVOID DAMAGE TO HEATING ELEMENT NOTE: AS WITH ALL WATER HEATERS, BE SURE THE UNIT IS FILLED WITH WATER

*PAGE 57A* 





### - IN FROM ISOLATOR/TANK SELECTOR VALVE (LOCATED IN CABINET BENEATH GALLEY SINK) WATER MANIFOLD LAYOUT - WATER PUMP - WATER FILTER 06/10/05 WATER MANIFOLD SCHEMATIC HOT IN FROM WATER HEATER 44cc8057C -FORWARD VANITY FORWARD VANITY -GALLEY -GALLEY -WASHER/COCKPIT SHOWER -WASHER/COCKPIT SHOWER - AFT VANITY -AFT VANITY – WATER HEATER FEED -FWD HEAD **AFT HEAD** LUG KEY ATTACHES TO FACE OF MANIFOLD PAGE 57C

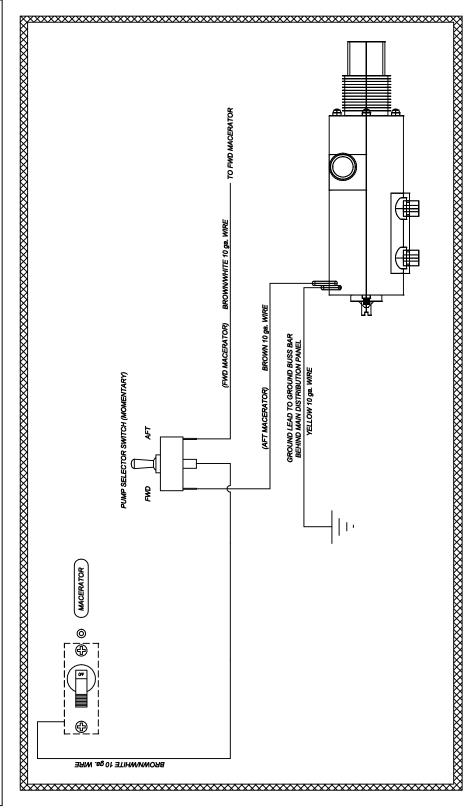


**SCHEMATIC** 06/10/05 MACERATOR

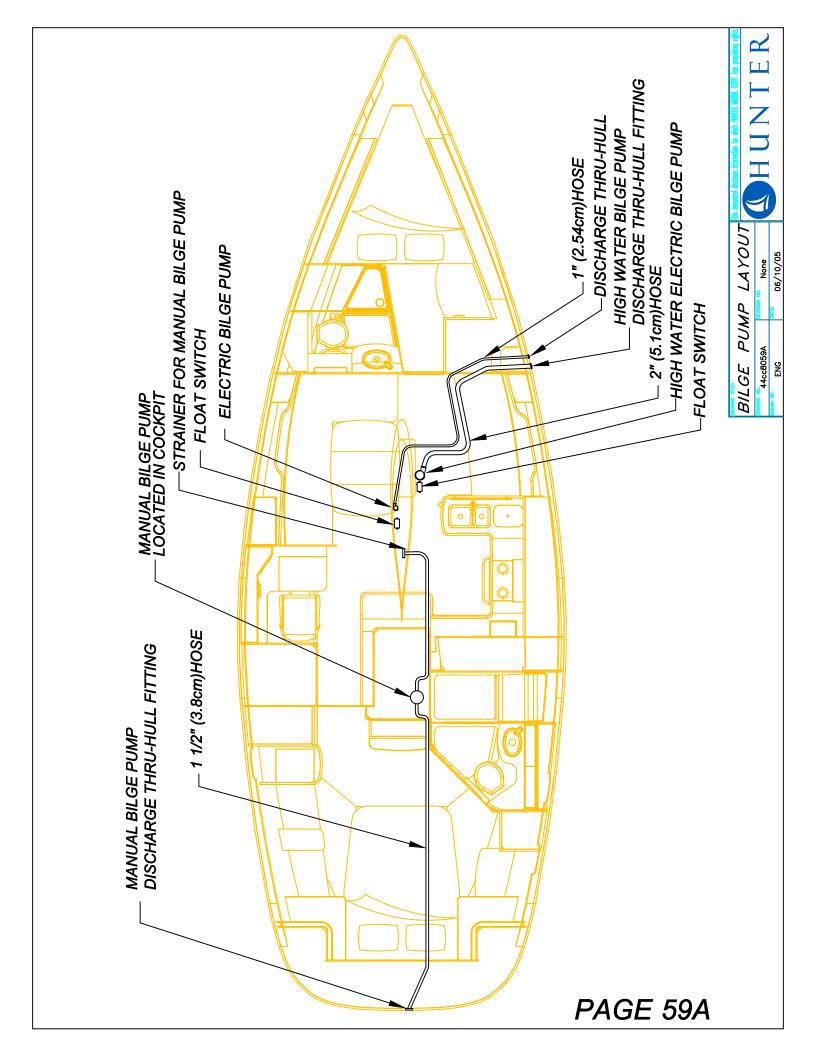
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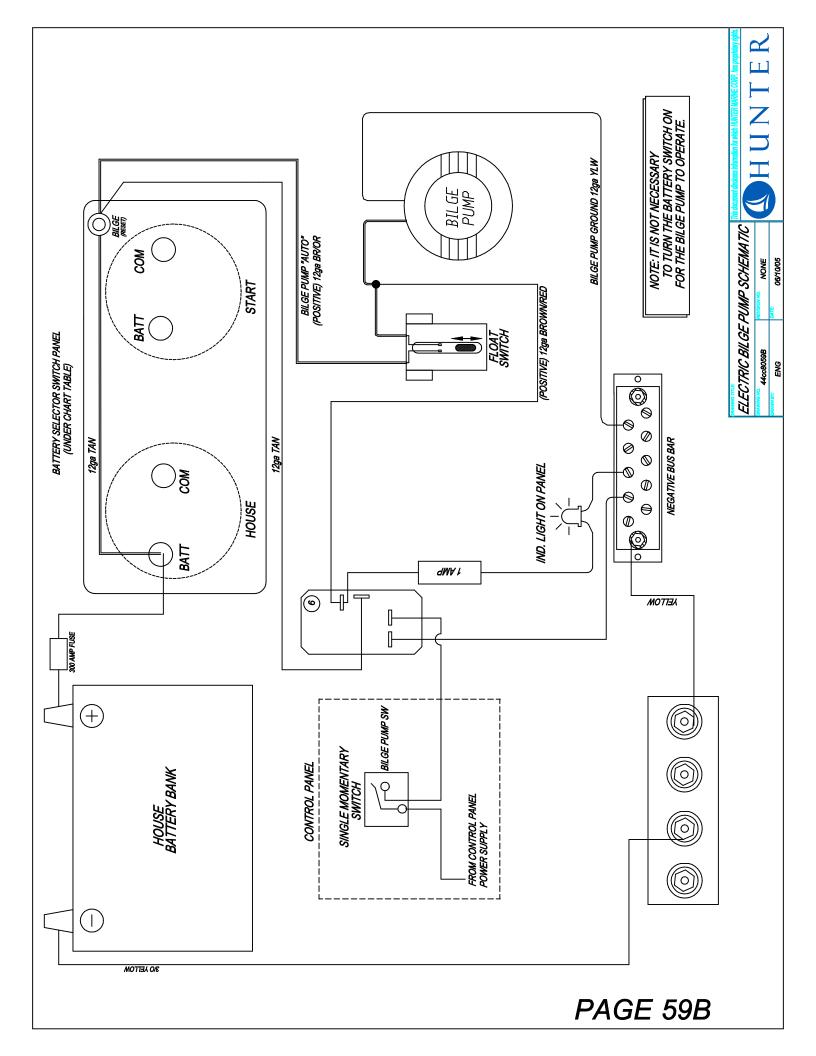
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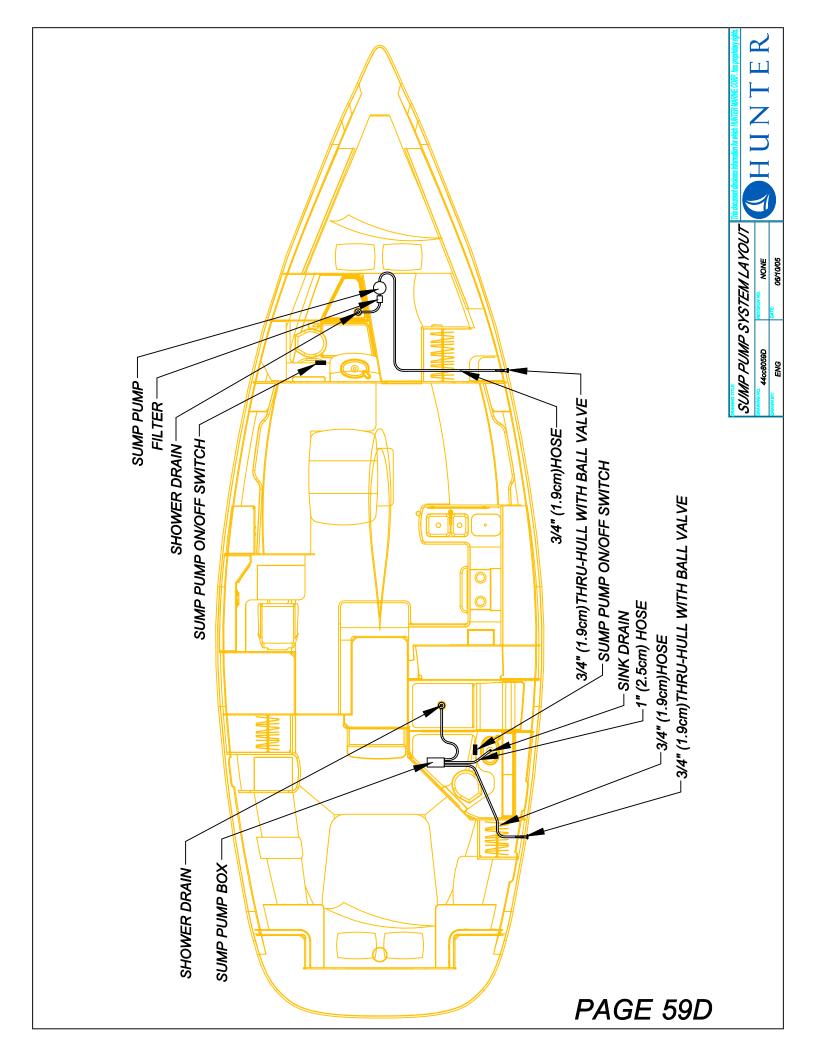
INDICATOR, OR LISTENING TO THE PITCH OF THE PUMP, HOLD THE MOMENTARY SWITCH FORWARD OR AFT. THIS WILL ACTIVATE THE MOMENTARY SWITCH AND TURN THE BREAKER TO THE "OFF" POSITION. NOTE: THE TANK MONITOR UPDATES SLOWLY, THEREFORE IT IS MORE AFFECTIVE AND SAFER FOR THE PUMP IF THE OPERATOR USES THE "LISTENING" METHOD TO DETERMINE IF THE TANK THE MACERATOR MOMENTARY SWITCH IS PROVIDED TO PROHIBIT THE "DRY RUNNING" OF THE MACERATOR. TO OPERATE THE MACERATOR. TURN THE MACERATOR BREAKER TO THE "ON" POSITION. WHILE EITHER WATCHING THE WASTE TANK LEVEL MACERATOR. ONCE THE TANK LEVEL INDICATOR REACHES "EMPTY", OR THE PITCH CHANGES NOTICEABLY, RELEASE THE HAS BEEN EMPTIED.

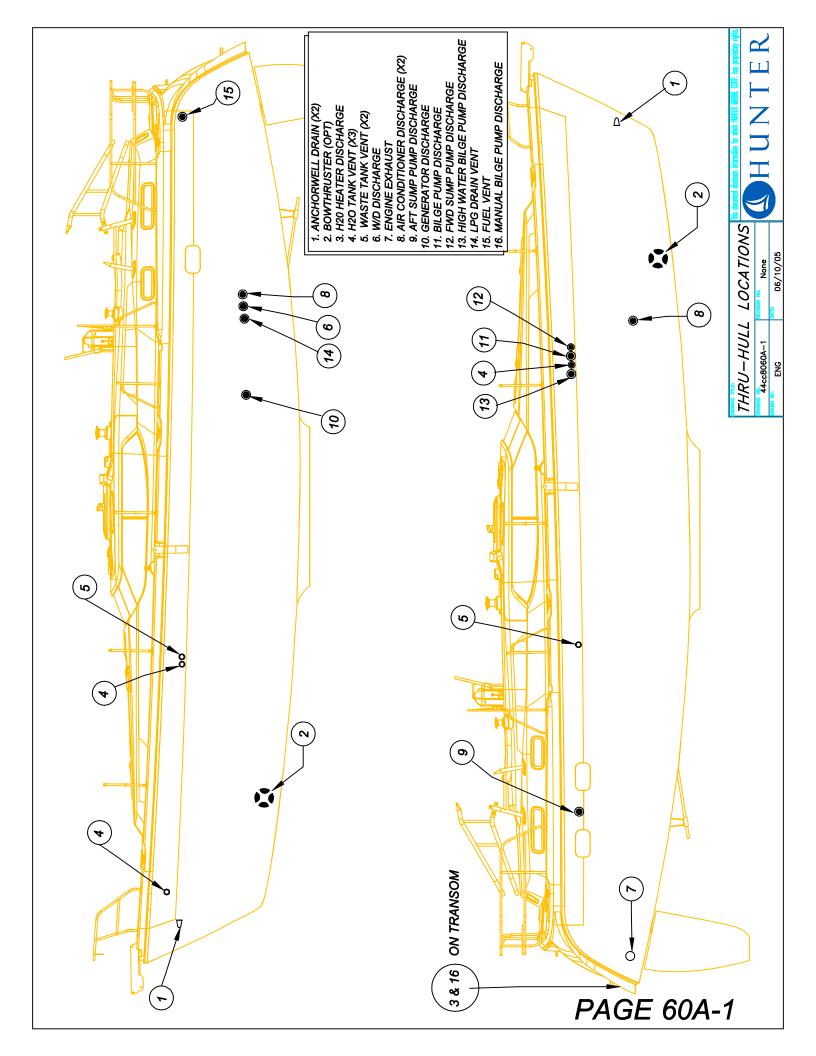


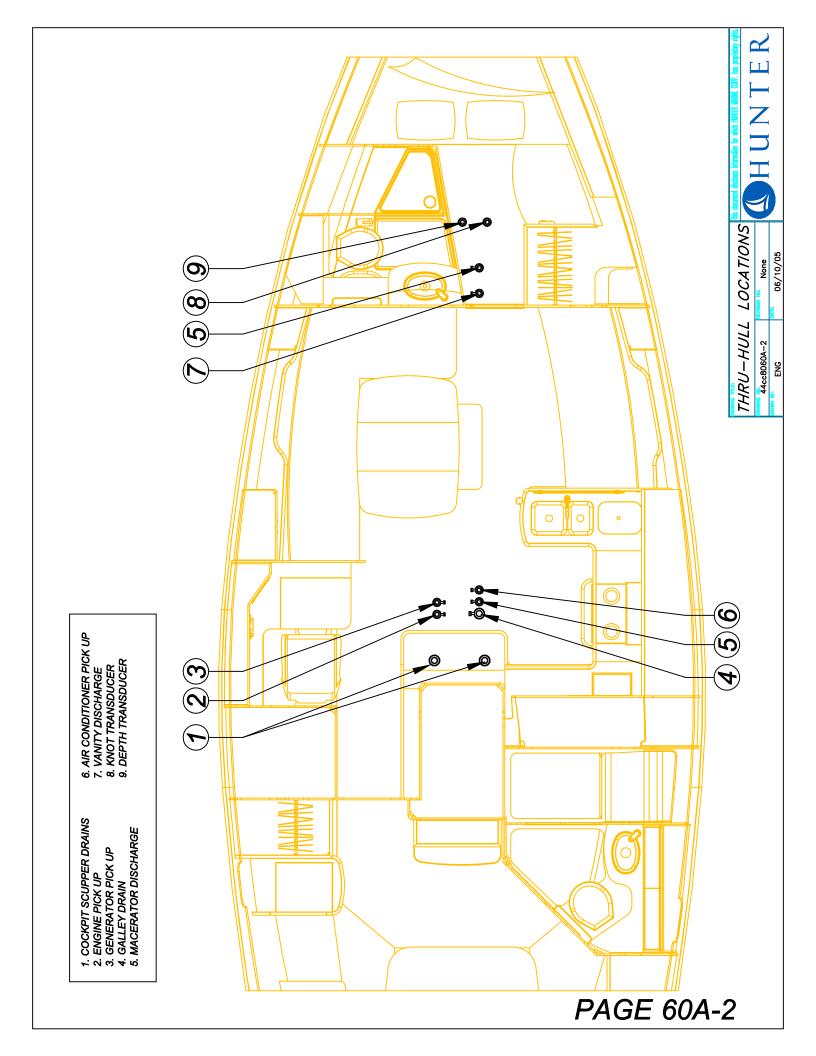
PAGE 58B

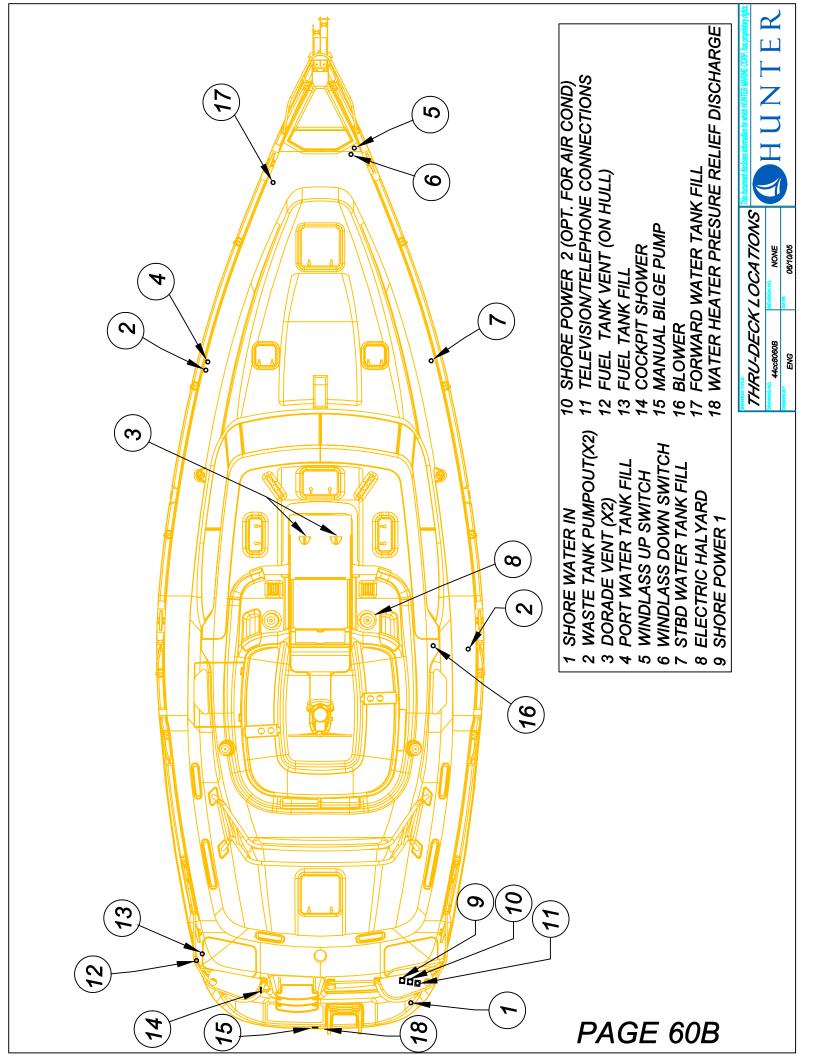


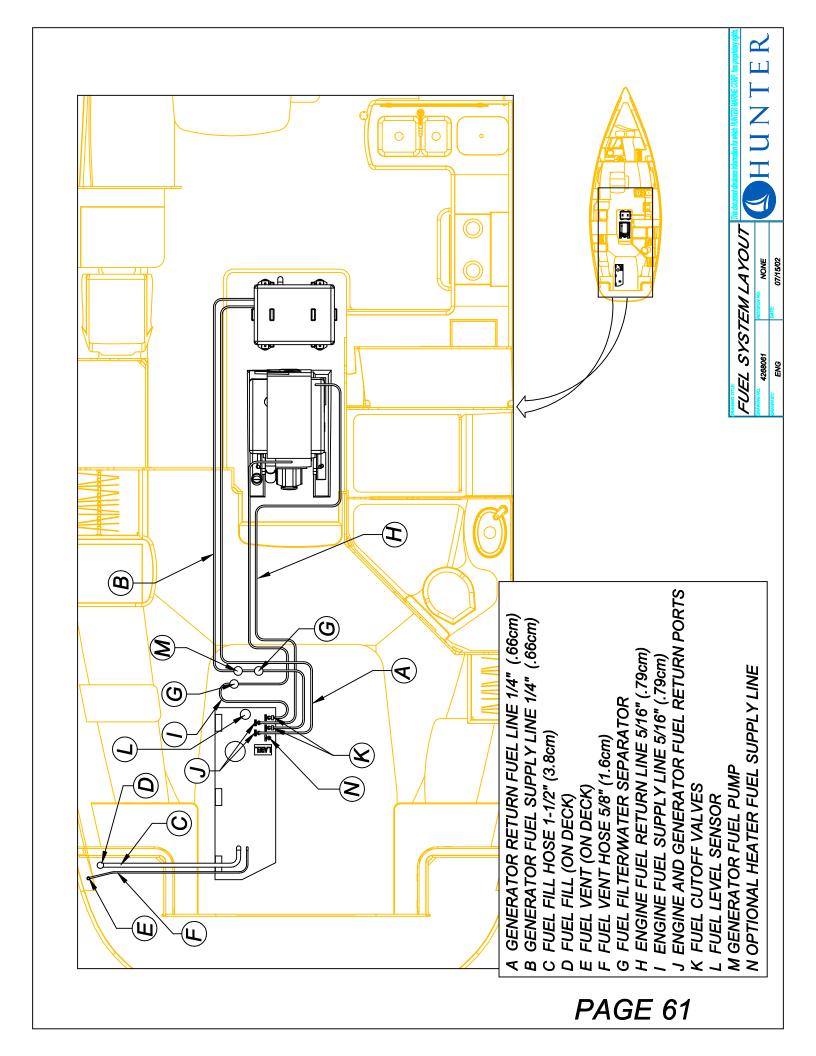


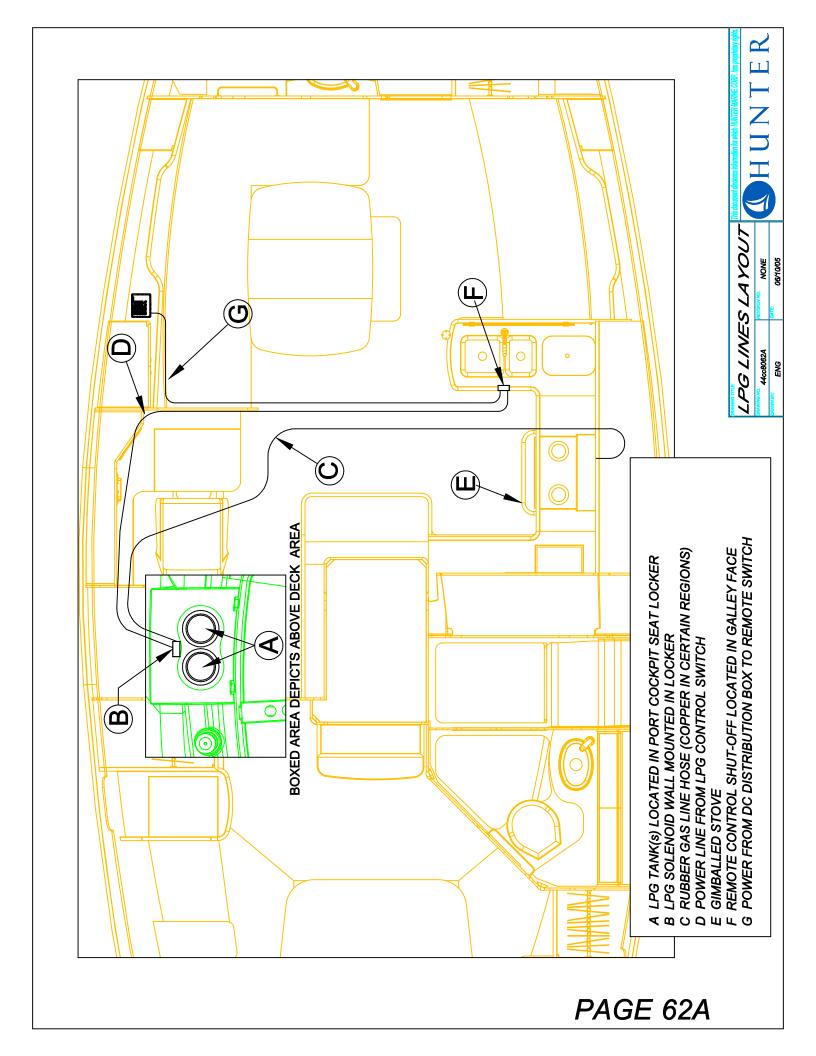


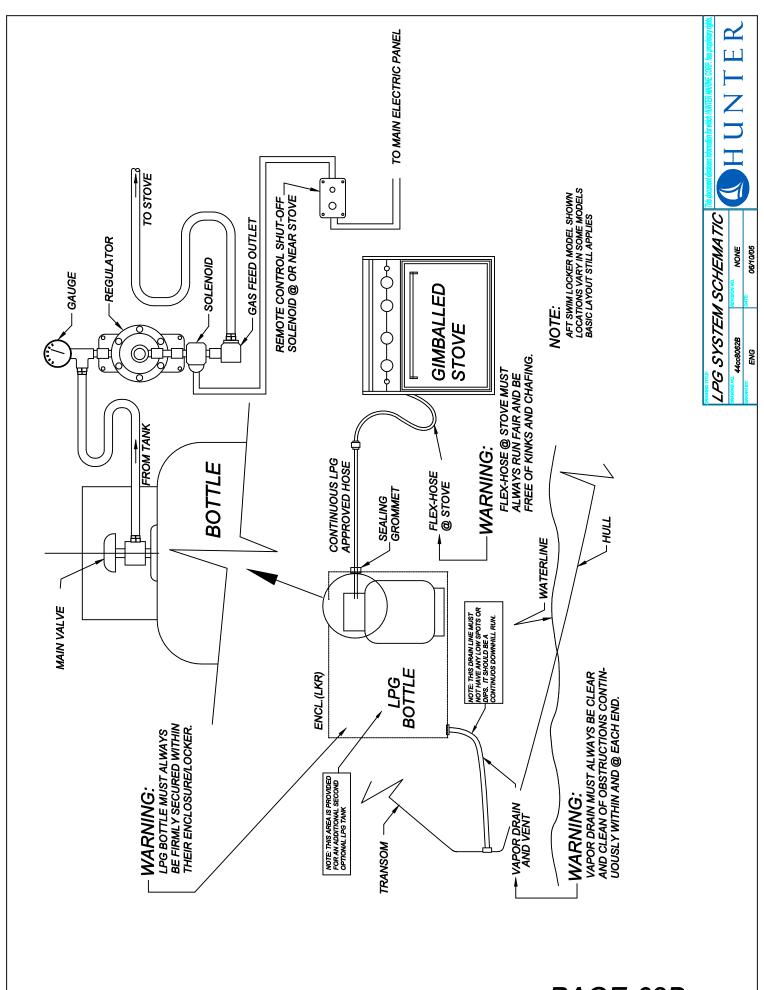












PAGE 62B

### POWER SYSTEMS OPERATION PROCEDURES

- CHEN COCKOE:	
D.C. MAIN	11. TURN DC MAIN BREAKER (LOCATED ON BATTERY SWITCH PANEL) TO THE "ON" POSITION TO SUPPLY POWER FROM HOUSE BATTERIES TO DC DISTRIBUTION BOX.  NOTE: HOUSE BATTERY SWITCH DOES NOT NEED TO BE ON TO SUPPLY POWER TO THE DC SYSTEMS. HOUSE SWITCH MAY NEED TO BE ON IF USING INVERTER/CHARGER SYST  TO MAINTAIN CHARGE TO HOUSE BATTERIES OR USING ALTERNATOR FROM ENGINE TO CHARGE BATTERIES.  IF NO POWER: CHECK 300 amp IN LINE FUSE AT HOUSE BATTERY IN CENTER BILGE COMPARTMENT, AND/OR BATTERY CONNECTIONS IF NECESSARY.
SHORE POWER "LINE 1"	1. CONNECT SHORE POWER CABLE #1, TO SUPPLY POWER TO "LINE 1" SIDE OF A.C. DISTRIBUTION BOX.  2. TURN ON "LINE 1" MAIN BREAKER, LOCATED STARBOARD AFT CABIN.  SHORE POWER "LINE 1" SHIDE 4" NDICATOR SHOULD BE ILLUMINATED ON THE CONTROL PANEL IF POWER IS AVAILABLE. (NOTE: APPROX. 15 SECOND DELAY ON OPT. INV. MODELS)  IF NO POWER TO "LINE 1", CHECK THE FOLLOWING:  1. BREAKER AT DOCKSIDE POWER SUPPLY BOX  2. BREAKER #1 IN STBD Q-BERTH
SHORE POWER "LINE 2" NOTE:	SHORE POWER "LINE 2" 1. CONNECT SHORE POWER CABLE #2, TO SUPPLY POWER TO "LINE 2" SIDE OF A.C. DISTRIBUTION BOX.  2. TURN ON "LINE 2" MAIN BREAKER, LOCATED STARBOARD AFT CABIN.  3. "LINE 2" INDICATOR SHOULD BE ILLUMINATED ON THE CONTROL PANEL IF POWER IS AVAILABLE.  IF NO POWER TO "LINE 2", CHECK THE FOLLOWING:  1. BREAKER AT DOCKSIDE POWER SUPPLY BOX  2. BREAKER AT DOCKSIDE POWER SUPPLY BOX  2. BREAKER #2 IN STBD Q-BERTH NOTE: #2 SHORE POWER IS SUPPLIED WITH OPTIONAL AIR COND. EQUIPPED MODELS ONLY  THE OPT AIR COND IS POWERED BY THE "SHORE POWER LINE 2" CABLE OR THE OPT. GENERATOR. NOTE: IF ANY OTHER APPLIANCES ARE TO BE USED WITH AIR COND.  RUNNING WHEN ON SHORE POWER BOTH "SHORE POWER #1" AND "SHORE POWER #2" CABLES MUST BE HOOKED UP.
OPTIONAL INVERTER WHEN IN INVERT MODE (CONVERT'S 12V.D.C. TO 120V.A.C.) BUILT IN INVERTER- TRANSFER SWITCH.	1. TURN THE HOUSE BATTERY SELECTOR SWITCH TO THE "ON" POSITION 2. PRESS THE INVERT BUTTON ON THE INVERTER REMOTE PANEL. (LOCATED AT NAV STATION) 3. TURN ON DESIRED APPLIANCES. (NOTE: OUTLETS AND MICROWAVE WILL RIN FROM THE INVERTER, WATER HEATER, AIR CONDITIONERS AND WASHER/DRYER WILL NOT.)  NOTE: IT TAKES 10 D.C. AMPS TO CREATE 1A.C. AMP, IF THE BATTERY VOLTAGE DROPS BELOW 10.5V. THE INVERTER WILL AUTOMATICALLY SHUT DOWN.  THE INVERTER AUTO TRANSFERS SHORE POWER TO THE A.C. DISTRIBUTION BOX WHEN "SHORE POWER #1" CABLE IS CONNECTED AND DOCKSIDE POWER PRESENT AT A.C. BOX AND BYPASSING THE INVERT MODE CAPABILITIES.
OPTIONAL GENERATOR OPT. BATT. CHARGER	1. TURN (START) BATTERY SWITCH TO THE "ON" POSITION 2. CHECK SEA STRAINER AND OPEN RAW WATER SEACOCK. SEE PAGE 60A FOR LOCATION 3. START GENERATOR (FOLLOW STARTING INSTRUCTIONS PROVIDED IN THE "GENERATOR MANUAL") 3. START GENERATOR (FOLLOW STARTING INSTRUCTIONS PROVIDED IN THE "GENERATOR MANUAL") 4. TURN ON GENERATOR ROCKER SWITCH TO THE "ON" POSITION LOCATED ON THE CONTROL PANEL.  NOTE: ALL A.C. SYSTEMS NOW SHOULD HAVE POWER, IF NO OUTPUT FROM GENERATOR IS THE PRESENT THEN A.C. SYSTEMS WILL STAY IN THE SHORE POWER MODE.  1. CONNECT SHORE POWER CABLE #1 TO POWER "LINE 1" SIDE OF A.C. DISTRIBUTION BOX AND TURN ON "SHORE POWER LINE 1" BREAKER.  2. TURN "BATTERY CHARGER" SWITCH (LOCATED ON CONTROL PANEL) TO THE "ON" POSITION NOTE: IT IS NOT NECESSARY TO TURN ON THE "HOUSE" BATTERY SWITCH TO PROVIDE CHARGING POWER TO THE HOUSE BATTERIES, ALSO START BATTERY DOES NOT RECEIVE CHARGE FROM BATTERY CHARGER, ONLY FROM ENGINE ALTERNATOR.
ENGINE ALTERNATOR	1. TURN (START) BATTERY SELECTOR SWITCH TO THE "ON" POSITION 2. CHECK SEA STRAINER & OPEN RAW WATER SEACOCK. SEE PAGES 60A FOR LOCATION 3. START SHIP'S ENGINE (FOLLOW STARTING INSTRUCTIONS IN THE "ENGINE MANUAL") 4. TURN (HOUSE) BATTERY SWITCH TO THE "ON" POSITION. NOTE: TURN ON (HOUSE) BATTERY SWITCH BEFORE STARTING IF BOOST IS NEEDED FROM HOUSE BATTERIES TO START ENGINE.
<b>OPTIONAL INVERTER</b> INVERTER HAS A BUILT IN AUTO. CHARGING SYSTEM	1. CONNECT SHORE POWER CABLE #1 TO POWER "LINE 1" SIDE OF A.C. DISTRIBUTION BOX AND TURN ON "SHORE POWER LINE 1" BREAKER.  2. TURN HOUSE BATTERY ON/OFF SWITCH TO THE "ON" POSITION  3. PRESS THE CHARGER BUTTON ON THE INVERTER REMOTE PANEL. (LOCATED AT NAV STATION)  NOTE: IT IS NOT NECESSARY TO TURN ON THE "START" BATTERY SWITCH TO PROVIDE CHARGING POWER TO THE START BATTERY.  NOTES: WHEN LEAVING BOAT UNATTENDED, BE SURE INVERTER REMOTE IS NOT IN THE INVERT MODE, THIS WAY IF SHORE POWER IS LOST  FOR ANY REASON, THIS WILL PREVENT THE INVERTER FROM CONVERTING 12V.D.C. TO A.C. VOLTAGE CAUSING HOUSE BATTERY TO BE DRAINED.  TYPICALLY THE BOAT SHOULD NOT BE LEFT UNATTENDED WITH SHORE POWER CONNECTED.  INVERTER CHARGE MODE WORKS ONLY WHEN THERE IS POWER TO THE "LINE 1" SIDE OF THE A.C. DISTRIBUTION BOX.





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THE BATTERY CHARGER IS IN THE PROPER POSITION BE SURE THE BATTERY SELECTOR SWITCH ON

NOTE:

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BATTERY SWITCH— PANEL

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ISOLATION TRANSFORMER

START BATTERY

CONTROL AC/DC

PANEL

FOR YOUR BATTERY TYPE

BASIC POWER SUPPLY SYSTEM LAYOU! 44cc8063A-3

SHORE POWER 2 POWERS "LINE 2" SIDE OF AC PANEL SHORE POWER 1 POWERS "LINE 1" SIDE OF AC PANEL

N

DC SIDE OF DISTRIBUTION PANEL AND TO THE OPTIONAL HOUSE BATTERIES PROVIDE 12V.D.C. VOLTAGE TO INVERTER VIA THE BATTERY SWITCH PANEL. **OPTIONAL INVERTER OR OPTIONAL BATTERY CHARGER.CONVERTS** OPTIONAL GENERATOR PROVIDES A.C. POWER TO BOTH 4 ro

"LINE 1 AND LINE 2" WHEN GENERATOR AND PARALLEL BREAKERS ARE IN THE "ON" POSITION WHILE GENERATOR

6. HOUSE BATTERY BANK 300A FUSE. 7. AC DISTRIBUTION BOX. IS RUNNING.

DC DISTRIBUTION BOX.

### 12 V.D.C. DISTRIBUTION BOX

BREAKER	DESCRIPTION		
CABIN LIGHTS	SUPPLIES POWER TO ALL INTERIOR LIGHTS		
COURTESY LIGHTS	SUPPLIES POWER TO FLOOR LIGHTS, ENGINE BOX, DISH RACK, COCKPIT LIGHT AND RANGE HOOD		
RADAR	SUPPLIES POWER TO CHART PLOTTER AND RADAR SYSTEMS		
SHOWER PUMP	SUPPLIES POWER TO SUMP PUMPS		
BLOWER	SUPPLIES POWER TO THE VENTILATION BLOWER IN THE ENGINE BOX		
FWD HEAD	SUPPLIES POWER TO FORWARD ELECTRIC TOILET		
AFT HEAD	SUPPLIES POWER TO AFT ELECTRIC TOILET		
WASTE PUMP	SUPPLIES POWER TO MACERATOR PUMP		
	NOTE: THESE DEVICES ARE USED FOR DIRECT		
	OVERBOARD DISCHARGE OF RAW SEWAGE, BE AWARE OF YOUR LOCAL BOATING REG. BEFORE USING.		
FWD ENTER.	SUPPLIES POWER TO FORWARD CABIN STEREO AND TV SYSTEMS		
MAIN ENTER.	SUPPLIES POWER TO MAIN SALON STEREO AND TV SYSTEMS		
AFT ENTER.	SUPPLIES POWER TO AFT CABIN STEREO AND TV SYSTEMS		
COCKPIT STEREO	SUPPLIES POWER TO COCKPIT STEREO UNIT		
FRIDGE	SUPPLIES POWER TO REF. COMPRESSOR, ADJUST THERMOSTATS INSIDE FRIDGE/FREEZER TO DESIRED TEMP.		
FREEZER	SUPPLIES POWER TO FREEZER COMPRESSOR, ADJUST THERMOSTATS INSIDE FREEZER TO DESIRED TEMP.		
VHF	SUPPLIES POWER TO THE VHF RADIO		
AUTOPILOT	SUPPLIES POWER TO AUTO PILOT SYSTEM AND TO SEATALK RESET		
NAV LIGHTS	SUPPLIES POWER BOW, STERN AND MAST LIGHTS		
DECK LIGHTS	SUPPLIES POWER TO MAST MOUNTED DECK LIGHT		
WATER PUMP	SUPPLIES POWER TO FRESH WATER PUMP TO PRESSURIZE WATER SYSTEM.		
SPARE	SUPPLIES POWER TO STUD MOUNTED ON SIDE OF DISTRIBUTION FOR OWNER'S USE. NOTE: UP TO 10 AMPS.		
12V OUTLET	SUPPLIES POWER TO POWER PLUGS PROVIDED FOR CELLPHONE, LAPTOP COMPUTER, ETC.		
CONTROL PANEL	SUPPLIES POWER TO AC/DC CONTROL PANEL		
BILGE IND.	OVER CURRENT PROTECTION FOR BILGE PUMP RUN INDICATOR ON CONTROL PANEL.		
SEATALK	OVER CURRENT PROTECTION FOR INSTRUMENT DISPLAYS		

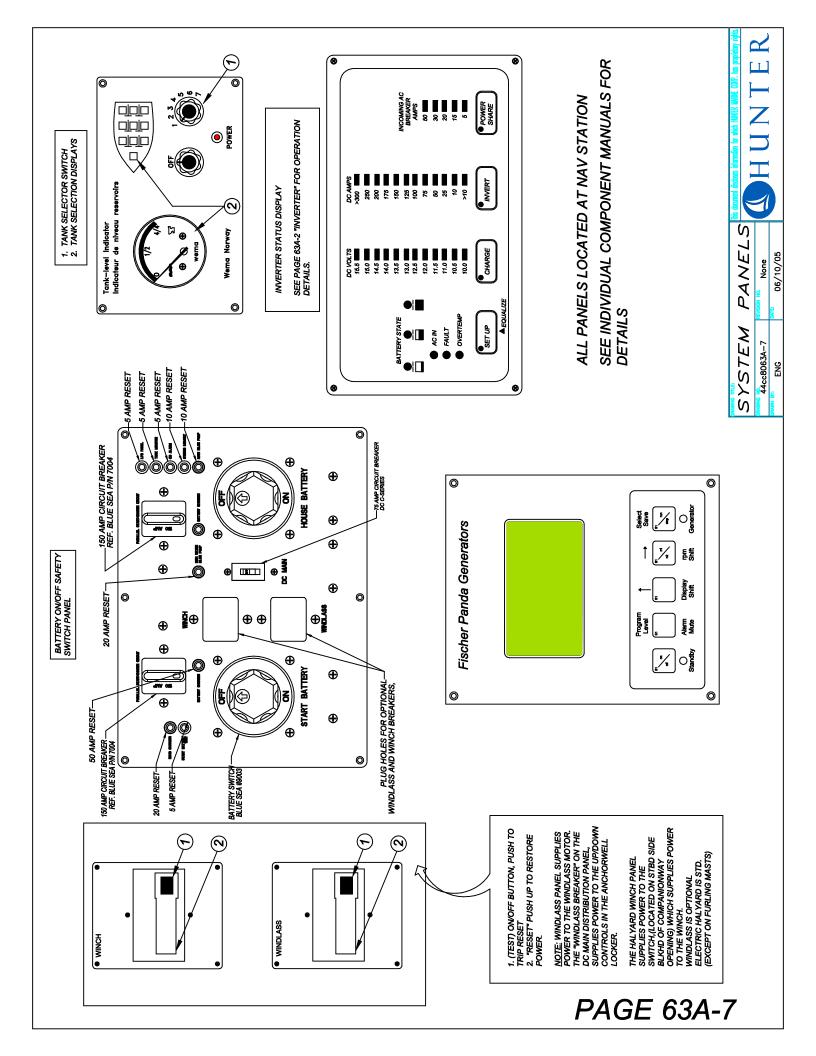
### 120 V.A.C. (230 OVERSEAS MODELS) DISTRIBUTION BOX

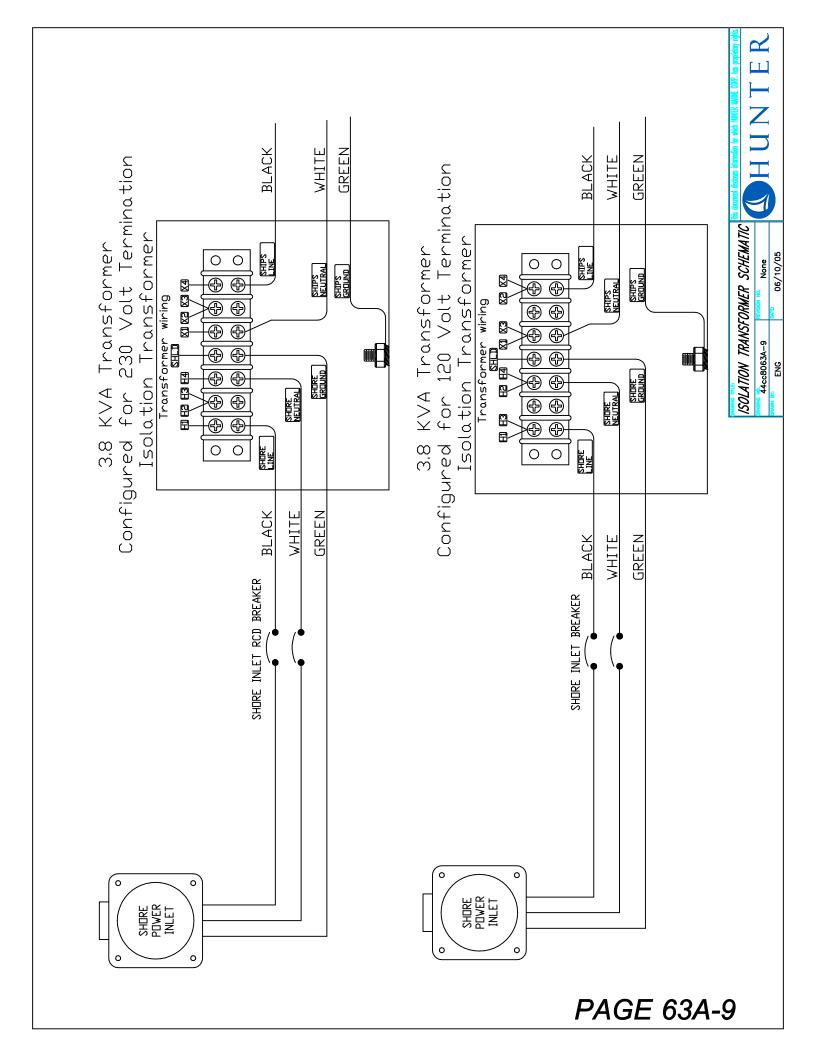
BREAKER	DESCRIPTION		
MICROWAVE	SUPPLIES POWER TO OUTLET BEHIND MICRO. IN WHICH MICROWAVE IS PLUGGED INTO.		
PORT OUTLETS	PROVIDES A.C. POWER TO THE OUTLETS ON THE PORT SIDE OF BOAT.		
STBD OUTLETS	PROVIDES A.C. POWER TO THE OUTLETS ON THE STBD. SIDE OF BOAT.		
SPARE (W/D)	SUPPLIES POWER TO OUTLET USED FOR THE WASHER/DRYER OPTION.		
SPARE (I/M)	NOT USED		
WATER HEATER	SUPPLIES POWER TO WATER HEATER. BE SURE TANK IS FULL AND SYSTEM IS FREE FROM AIR BEFORE		
	APPLYING POWER TO HEATER TO PREVENT ELEMENT BURNOUT. NOTE DO NOT TRY TO POWER WATER HEATER		
	OFF OF THE OPTIONAL INVERTER, IT IS NOT CAPABLE OF SUPPLYING ENOUGH POWER TO POWER UNIT.		
BATT. CHARGER	PROVIDES POWER TO BATTERY CHARGER WHICH IN TURN PROVIDES CHARGING POWER TO BATTERIES. NOTE:		
	IF OPTIONAL INVERTER CHOSEN THIS BREAKER IS NOT UTILIZED AND IS AVAILABLE AS A "SPARE" BREAKER.		
FWD AIR COND.	PROVIDES POWER TO AIR COND. UNIT (SEE "AIR COND. MANUAL" FOR OPER. INSTRUCTIONS.)		
AFT AIR COND	PROVIDES POWER TO AIR COND. UNIT (SEE "AIR COND. MANUAL" FOR OPER. INSTRUCTIONS.)		
PUMP RELAY	PROVIDES POWER TO AIR COND. SYSTEM WATER PUMP		
	ALWAYS TURN RELAY BREAKER ON BEFORE TURNING ON AIR COND UNITS		
VOLT METER 1	OVER CURRENT PROTECTION FOR LINE 1 VOLT METER ON CONTROL PANEL		
VOLT METER 2	OVER CURRENT PROTECTION FOR LINE 2 VOLT METER ON CONTROL PANEL		

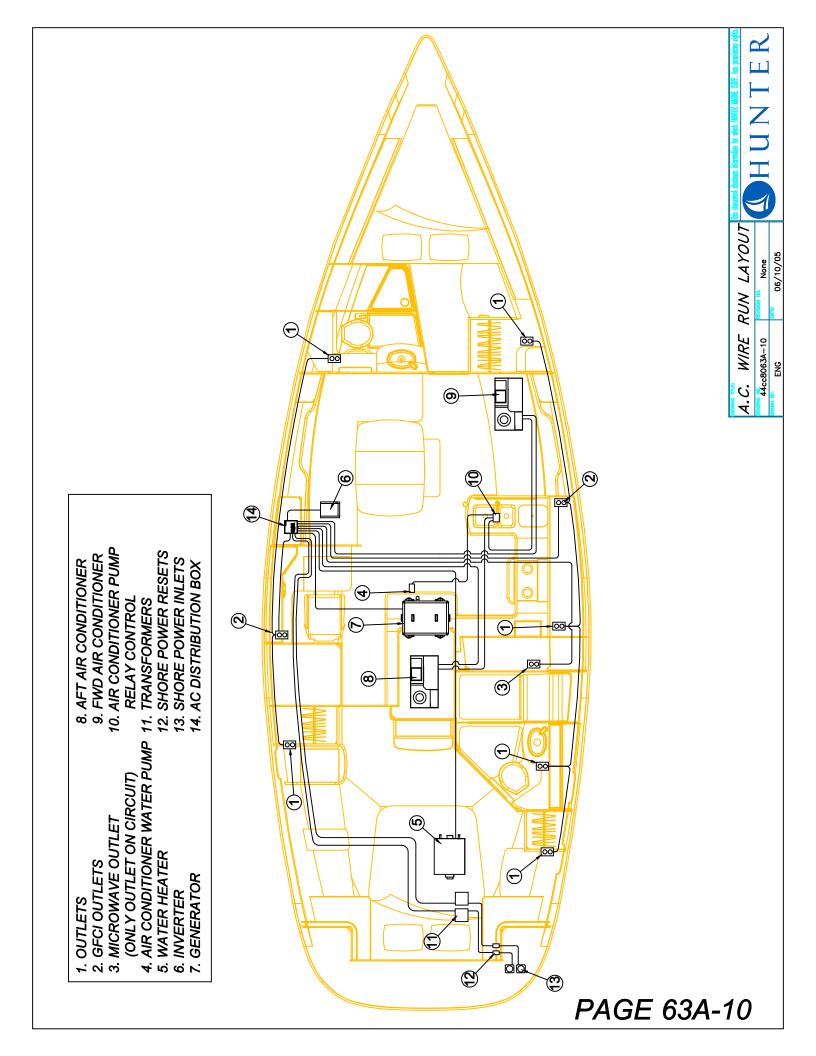
### AC/DC CONTROL PANEL

SWITCH	DESCRIPTION (12VDC SIDE)	
PANELS LIGHTS	PROVIDES BACK LIGHTING TO THE PANEL LABELS	
DECK LIGHTS	TURNS ON/OFF THE MAST MOUNTED DECK LIGHT.	
INSTRUMENTS	TURNS ON/OFF THE INSTRUMENT DISPLAYS AND AUTO PILOT SYSTEM IF EQUIPED.	
WATER PUMP	TURNS ON/OFF THE FRESH WATER PUMP.	
SPARE	TURNS ON/OFF OWNER'S INSTALLED EQUIPMENT FOR USE BY OWNER.	
BILGE PUMP	TURNS ON MAIN BILGE PUMP, SWITCH IS MOMENTARY AND USED FOR TESTING THE SYSTEM.	
ANCHOR LIGHT	TURNS ON/OFF THE MAST MOUNTED ANCHOR LIGHT.	
STEAMING LIGHT	TURNS ON/OFF THE FORWARD MOUNTED MAST LIGHT.	
NAVIGATION LTS	TURNS ON/OFF THE BOW AND STERN LIGHTS.	
HOUSE (I)	SHOWS HOUSE BATTERY BANK VOLTS ON METER DISPLAY. ALL LOADS SHOULD BE OFF FOR ACCURATE READING.	
START (II)	SHOWS START BATTERY VOLTS ON METER DISPLAY.	
AUTO BILGE (LED)	ILLUMINATES IF MAIN BILGE PUMP IS RUNNING.	

SWITCH	DESCRIPTION (120V-60 HERTZ SIDE)		
BATTERY CHARGER	TURNS ON/OFF THE BATTERY CHARGER. NOTE: INVERTER IS INSTALLED, THIS HAS NO FUNCTION.		
WATER HEATER	TURNS ON/OFF THE WATER HEATER.		
GENERATOR	TRANSFERS POWER FROM SHORE POWER OR GENERATOR.		
	NOTE: IF GENERATOR IS NOT RUNNING, NO ACTION WILL BE TAKEN		
SHORE POWER 1 (LED)	E POWER 1 (LED) INDICATOR LIGHT ILLUMINATES IF POWER IS AVAILABLE ON LINE 1.		
SHORE POWER 2 (LED)	INDICATOR LIGHT ILLUMINATES IF POWER IS AVAILABLE ON LINE 2.		
AC VOLTS (I)	SHOWS VOLTAGE ON LINE 1.		
AC VOLTS (II)	SHOWS VOLTAGE ON LINE 2.		







# **WATTAGE DEMAND FOR ELECTRICAL EQUIPMENT AND APPLIANCES**

NOTE: A PRUDENT MARINER REALIZES THAT THE RESOURCES TO POWER A VESSEL ARE LIMITED. WHEN USING THE ALTERNATE POWER SOURCES ONE SHOULD BE CONSERVATIVE AND AWARE OF THE AMOUNT OF POWER BEING SUPPLIED VERSES POWER BEING DRAWN THIS IS ESPECIALLY IMPORTANT WHEN USING THE INVERTER POWER. CONSULT THE "INVERTER MANUAL" FOR POWER OUTPUT CAPABILITIES.

### FIXED APPLIANCES:

SEE MANUALS AND/OR SPECIFICATION SHEETS IN YOUR OWNER'S PACK

### PORTABLE APPLIANCES:

BELOW ARE APPROXIMATE EXAMPLES OF THE AMPERAGE DRAW ASSOCIATED WITH CERTAIN ITEMS.

### APPLIANCES: / WATTS:

COFFEE MAKER800 - 1,000 WATTS
FRYING PAN1,000 - 2,500 WATTS
TOASTER800 - 1,000 WATTS
FAN75 - 300 WATTS
RADIO60 - 150 WATTS
TV250 - 600 WATTS
HOT PLATE800 - 1,200 WATTS
HAIR DRYER700 - 1,100 WATTS
SHAVER50 - 100 WATTS
CLOCK25 - 50 WATTS
BLENDER250 - 350 WATTS
TOASTER OVEN1,250 - 1,700 WATTS

### ALTERNATE POWER SOURCES: / PROVIDED WATTS:

SMALLER MODEL INVERTER......1,000 WATTS

LARGER MODEL INVERTER.......2,500 WATTS (THIS MODEL ON YOUR BOAT)
SMALLER MODEL GENERATOR......6,000 WATTS (5,000 WATTS FOR 50 Hz)
LARGER MODEL GENERATOR.......8,000 WATTS (6,600 WATTS FOR 50 Hz)

SHORE POWER (PER INLET)......3,600 WATTS

THUS, IF THE WATTS BEING USED EXCEEDS THE WATTS BEING PRODUCED, THEN SOME OF THE ITEMS IN USE WILL NOT BE FUNCTIONAL. AGAIN, IT IS IMPORTANT TO BE AWARE OF THE AMPERAGE DRAW EXAMPLE: TV (250-600)+ TOASTER (800-1,000)+ HAIR DRYER (700-1,100) = TOTAL (1,750-2,700) VERSUS THE AMPERAGE OUTPUT AT ALL TIMES.

## BASIC OPERATING INSTRUCTIONS:

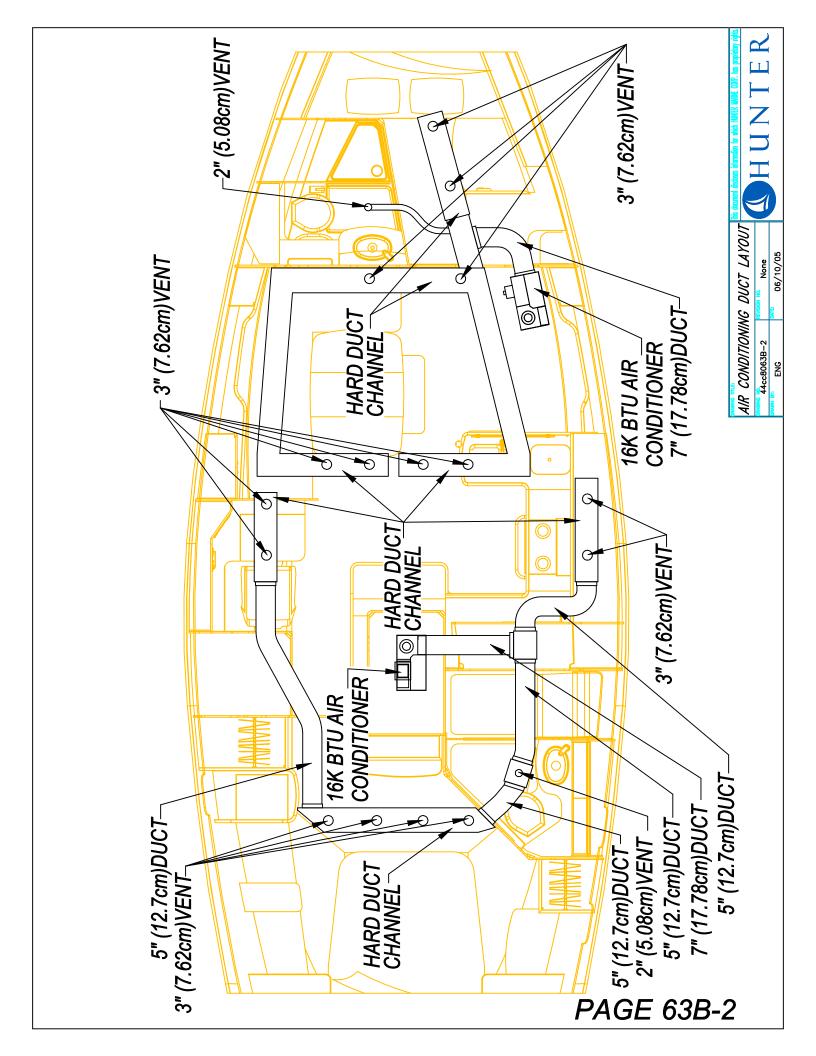
- (1) CHOOSE POWER SOURCE (SHORE POWER OR GENERATOR) SEE SECTION 63A
- ② CHECK AIR COND. SEA STRAINER, CLEAN IF NECESSARY ③ OPEN RAW WATER PICKUP SEACOCK
  - MAKE SURE THAT DISCHARGE VALVE IS OPEN
- 4 TURN ON A.C. MAIN (LINE "2") BREAKER LOCATED IN AFT CABIN
- **⑤** TURN ON UNIT AT THERMOSTAT DISPLAY PANEL AND SET TEMP.

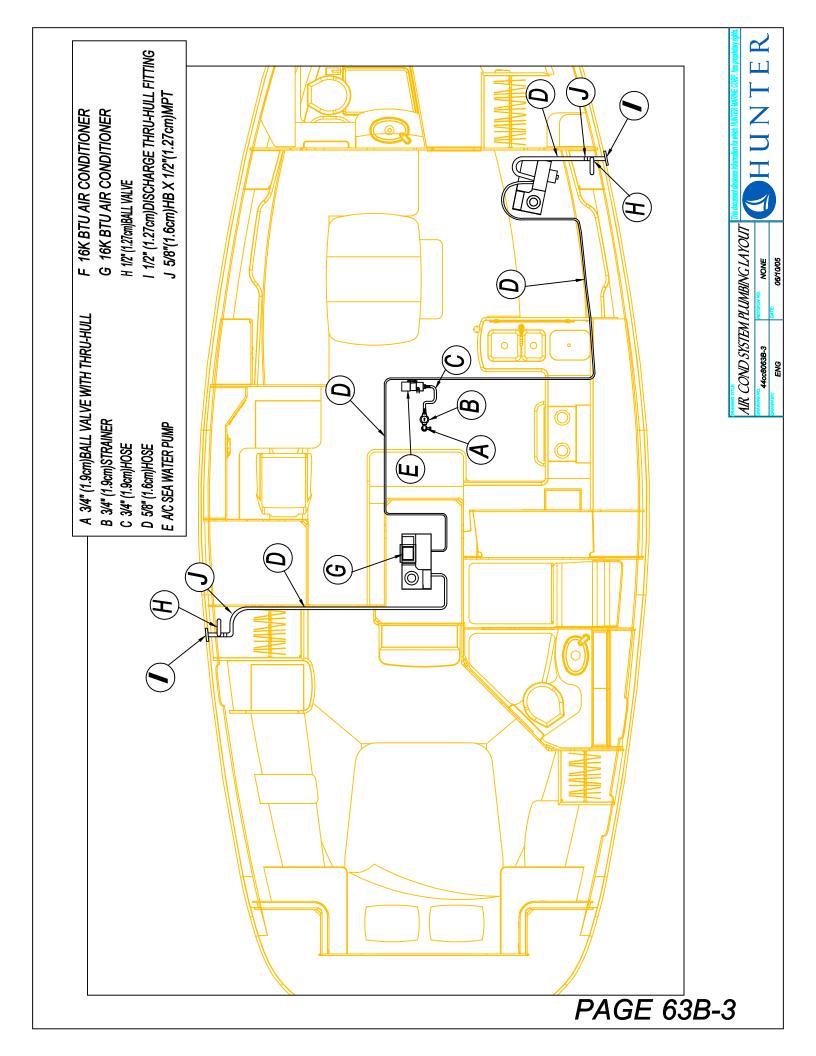
### NOTE

IS RUNNING WHEN ON SHORE POWER, BOTH "SHORE POWER A" AND IF ANY OTHER APPLIANCES ARE TO BE USED WHEN AIR CONDITIONER "SHORE POWER B" CABLES MUST BE HOOKED UP. IF THERE IS NO POWER AT PANEL WHEN CONNECTED TO SHORE POWER, CHECK BREAKERS ON DOCK

SEE AIR CONDITION MANUAL FOR DETAILED OPERATING PROGRAMMING/TROUBLESHOOTING INSTRUCTIONS







### BATTERY CHARGING SYSTEM

### BASIC OPERATING INSTRUCTIONS:

- ① CONNECT SHORE POWER TO DOCKSIDE SUPPLY AND SHORE POWER INLET ON STERN OF BOAT STBD. SIDE
- ② TURN ON "A.C. MAIN" BREAKER, LOCATED IN AFT CABIN.
- ③ TURN ON "BATTERY CHARGER" SWITCH ON CONTROL PANEL.

VOTE:

SEE SECTION 64A FOR SCHEMATICS CHECK FOR CORRECT FLUID LEVEL IN BATTERIES PRIOR TO USING CHARGER / OPT INVERTER. USING THE ENGINE ALTERNATOR AS A CHARGING SOURCE WILL SIGNIFICANTLY REDUCE THE DRAIN ON THE HOUSE / START BATTERIES.



### OPTIONAL GENERATOR SYSTEM...

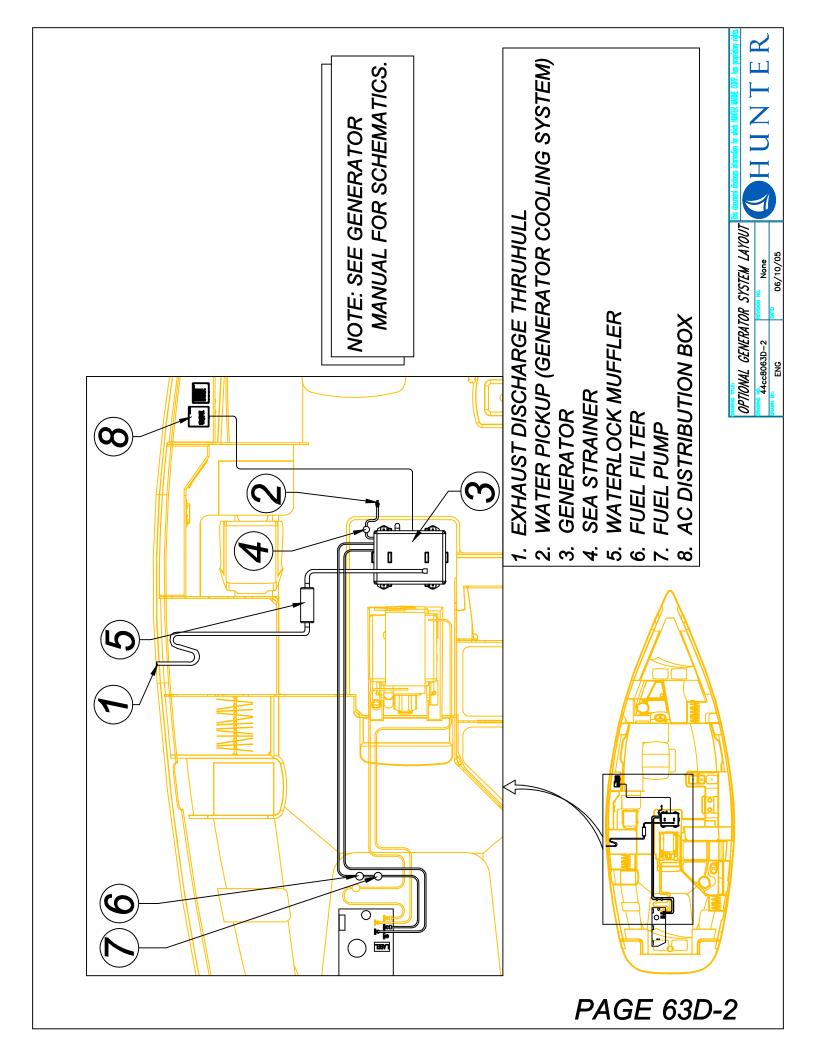
BASIC OPERATING INSTRUCTIONS: (NOTE: READ GENERATOR MANUAL BEFORE OPERATING GEN.)

- (1) CHECK DIESEL FUEL LEVEL
- 2) CHECK OIL LEVEL IN GENERATOR (SEE GEN. MANUAL FOR INST.)
- 3 TURN ON START BATTERY SELECTOR SWITCH (LOCATED AT NAVIGATION STATION)
  - 4) CHECK SEA STRAINER (LOCATED NEXT TO GENERATOR)
    - ⑤ OPEN RAW WATER SEACOCK (LOCATED W/STRAINER)
- START GENERATOR USING START PROCEDURE IN "GENERATOR MANUAL" !!!
- (7) TURN ON "GENERATOR" SWITCH ON CONTROL PANEL
- (8) TO SHUT GEN. DOWN, PUSH STOP BUTTON ON GENERATOR PANEL.

NOTE: SEE GENERATOR MANUAL FOR PROPER MAINTENANCE, TROUBLESHOOTING, ETC.



**PAGE 63D-1** 



### SECTION 63E....INVERTER SYSTEM

# BASIC OPERATING INSTRUCTIONS: (FOR INVERTING D.C. POWER TO A.C. POWER)

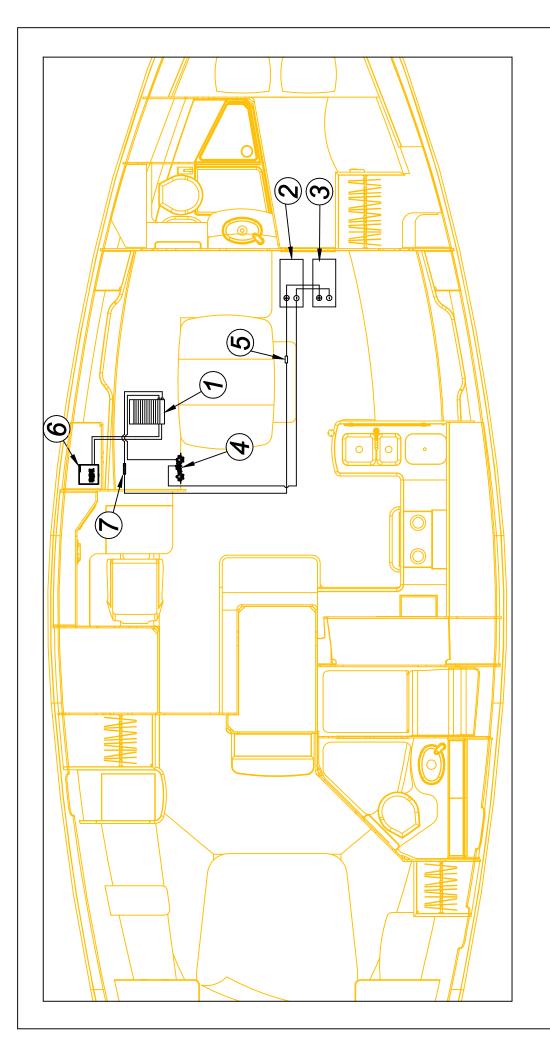
- (1) TURN THE HOUSE BATTERY SWITCH TO THE "ON" POSITION.
- ②PRESS INVERT ON THE INVERTER REMOTE PANEL, LOCATED AT THE NAV STATION
  - **3 TURN ON APPROPRIATE APPLIANCE BREAKER ON A.C. SIDE OF PANEL.**

### NOTE:

READ "INVERTER" SECTION ON PAGE 63A-2 FOR INVERTER SYSTEM DETAILS

SEE INVERTER MANUAL FOR TECHNICAL DATA, TROUBLESHOOTING, ETC. OPERATING/PROGRAMMING INSTRUCTIONS



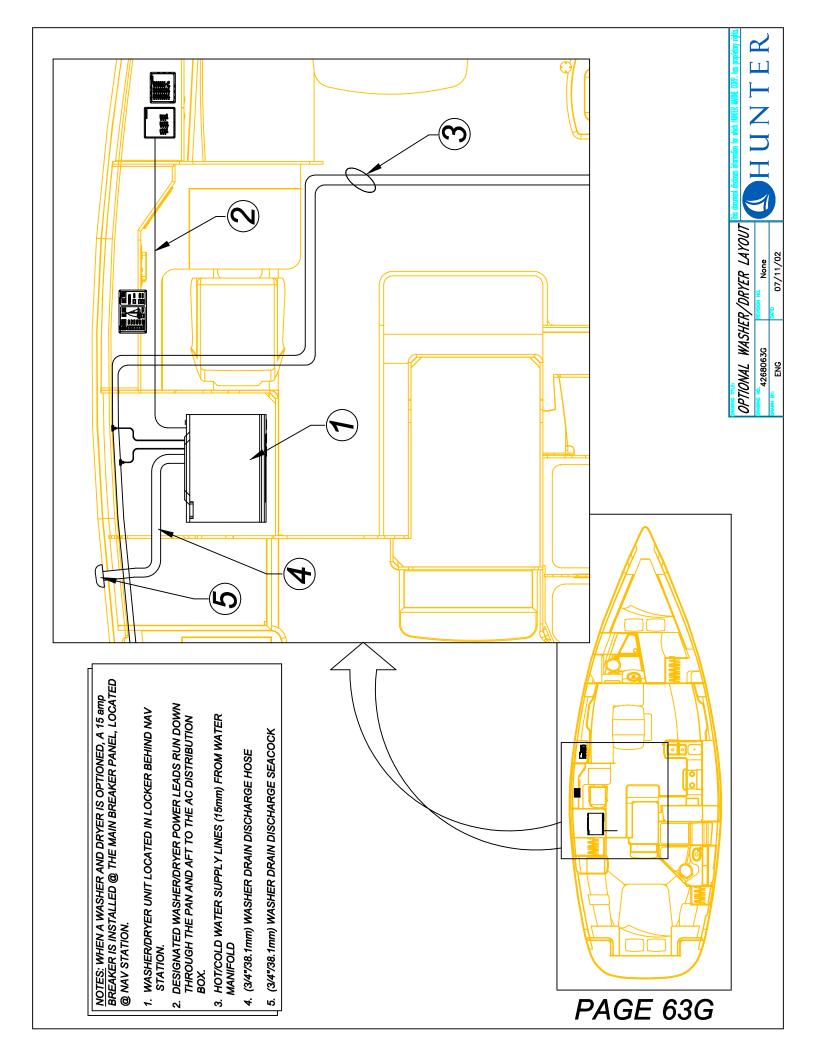


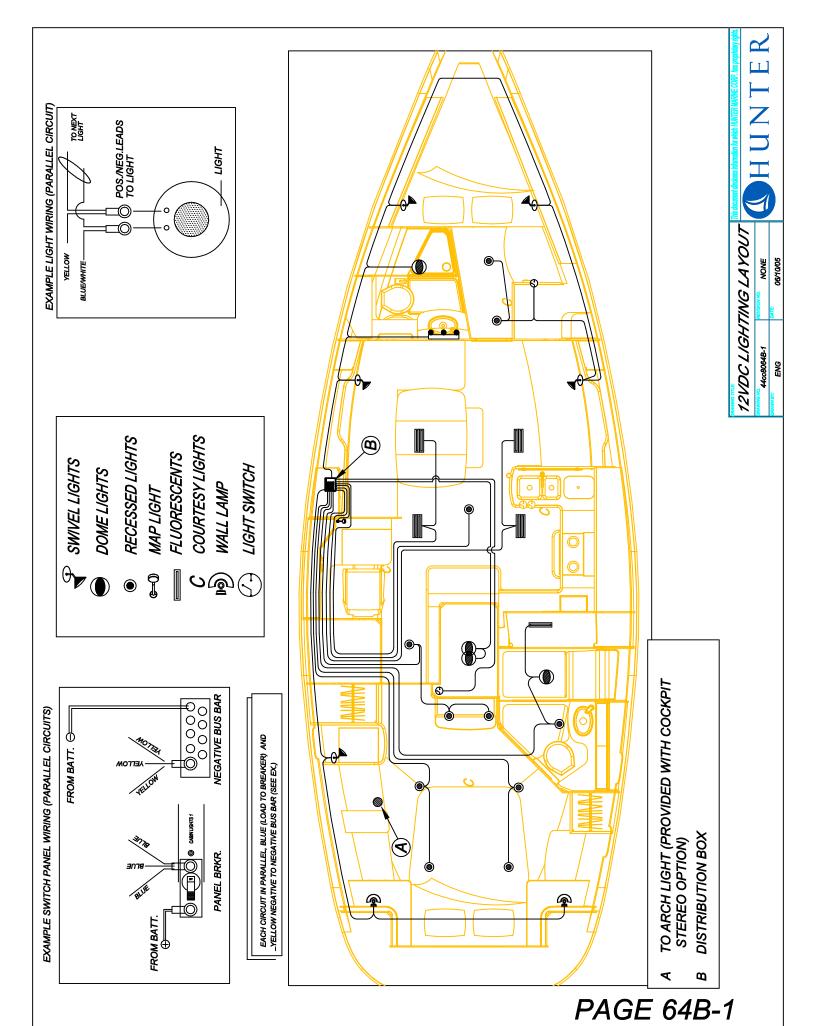
300 AMP FUSE
 AC DISTRIBUTION BOX
 NEGATIVE BUS BAR

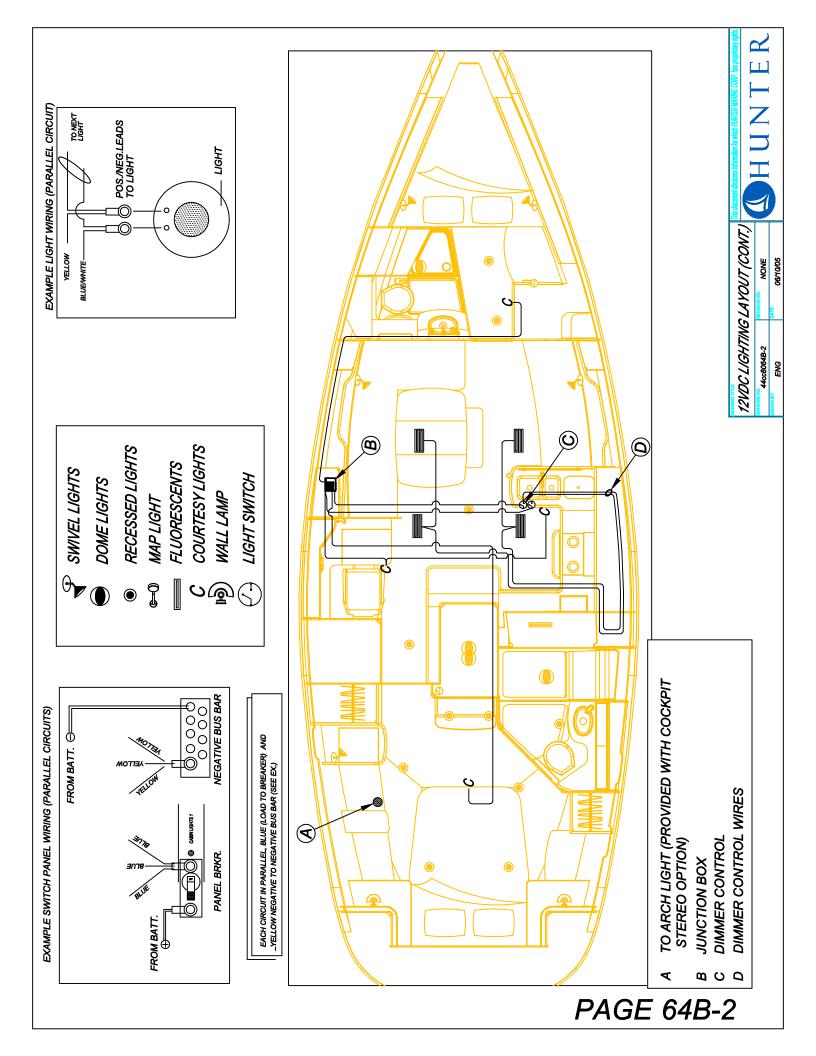
. INVERTER .. HOUSE BATTERY (PORT) .. HOUSE BATTERY (STBD) .. BATTERY SELECTOR PANEL

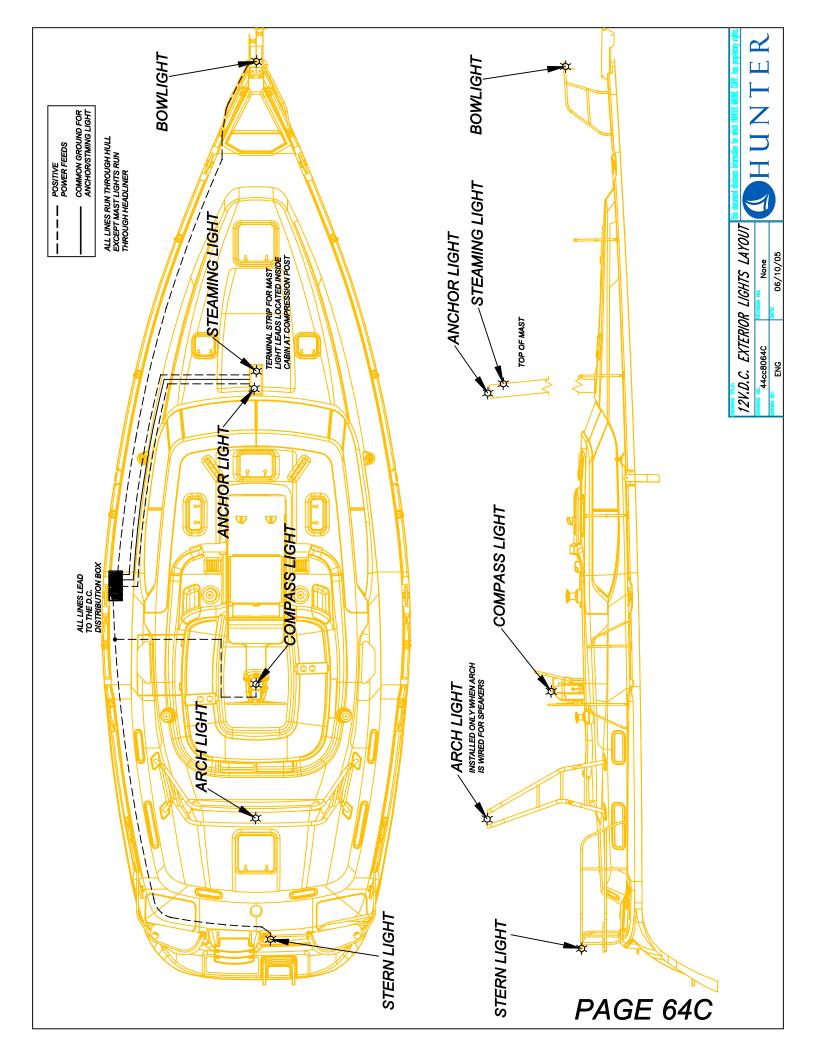
HUNTER OPTIONAL INVERTER SYSTEM LAYOUI 06/10/05 44cc8063E-2

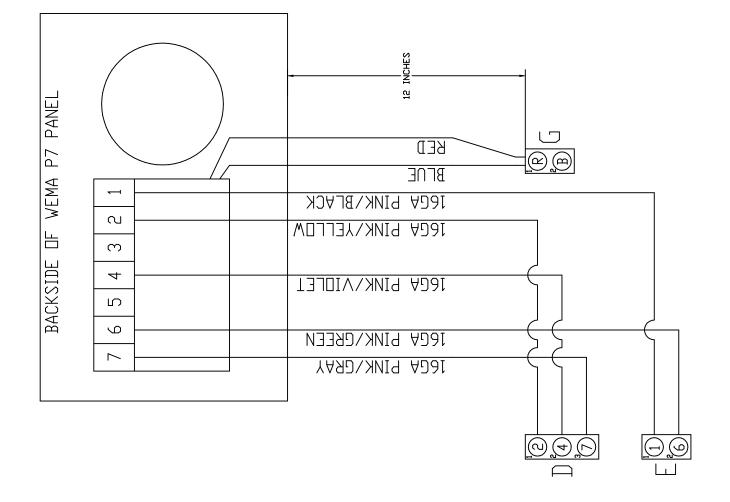
**PAGE 63E-2** 

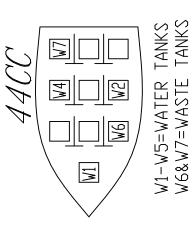








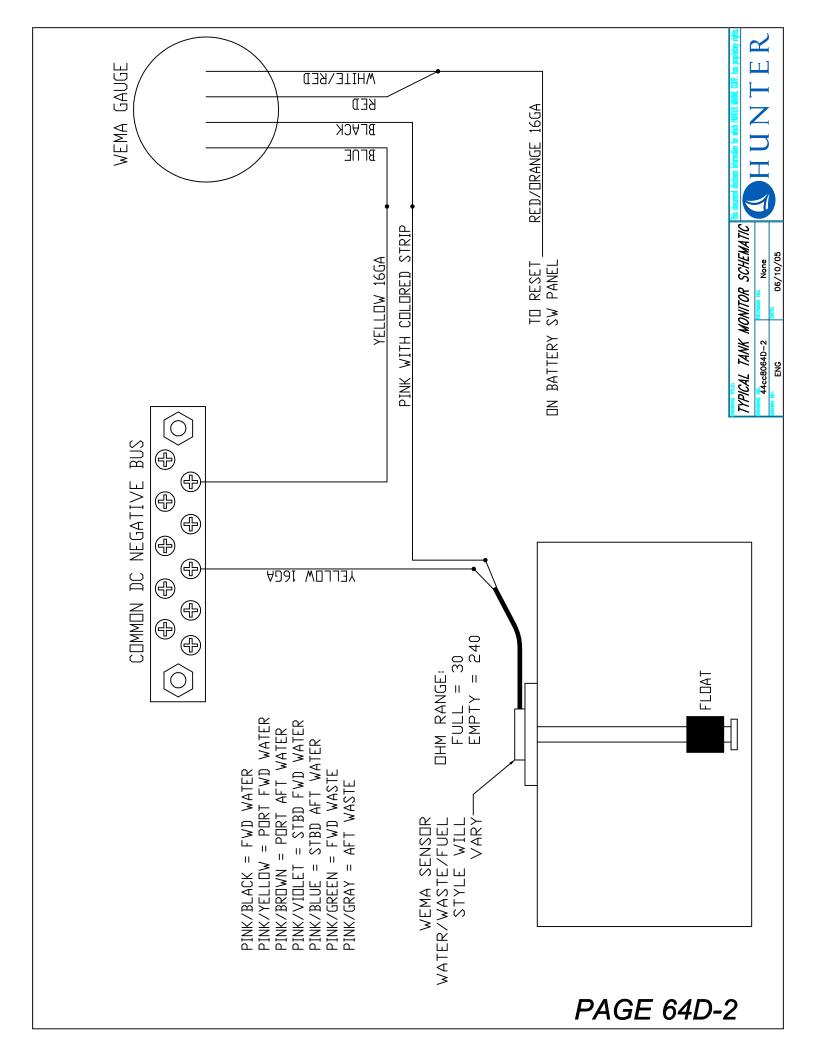


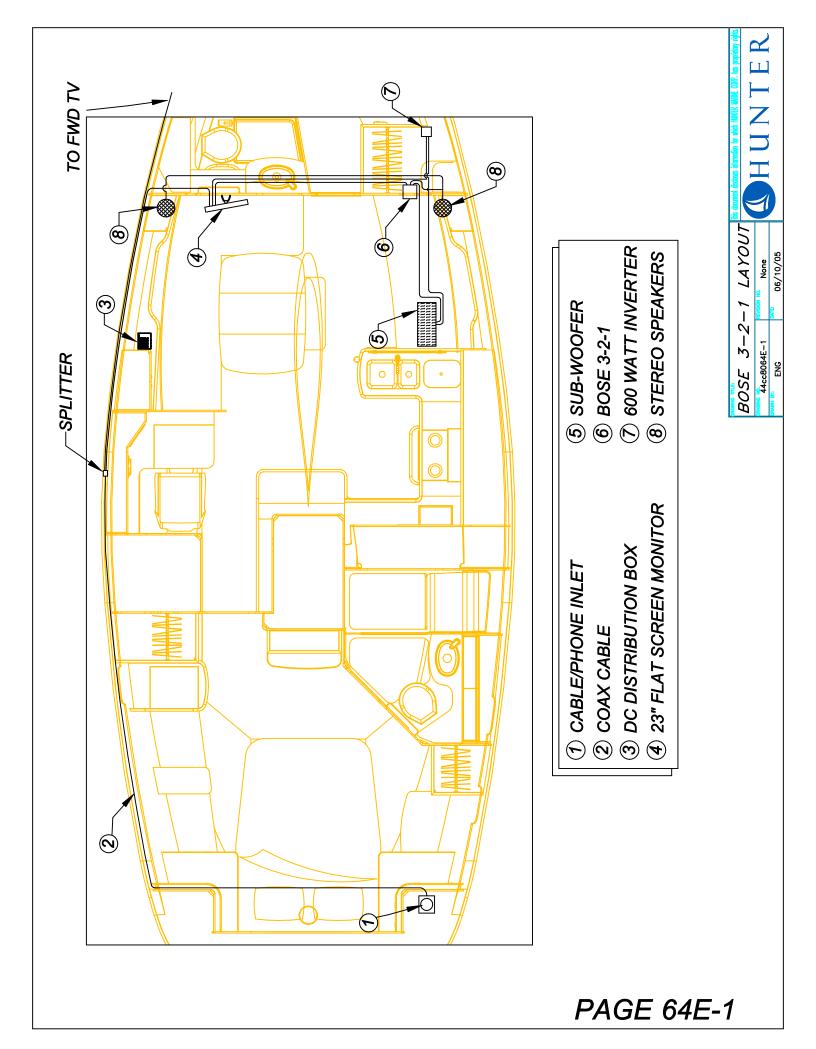


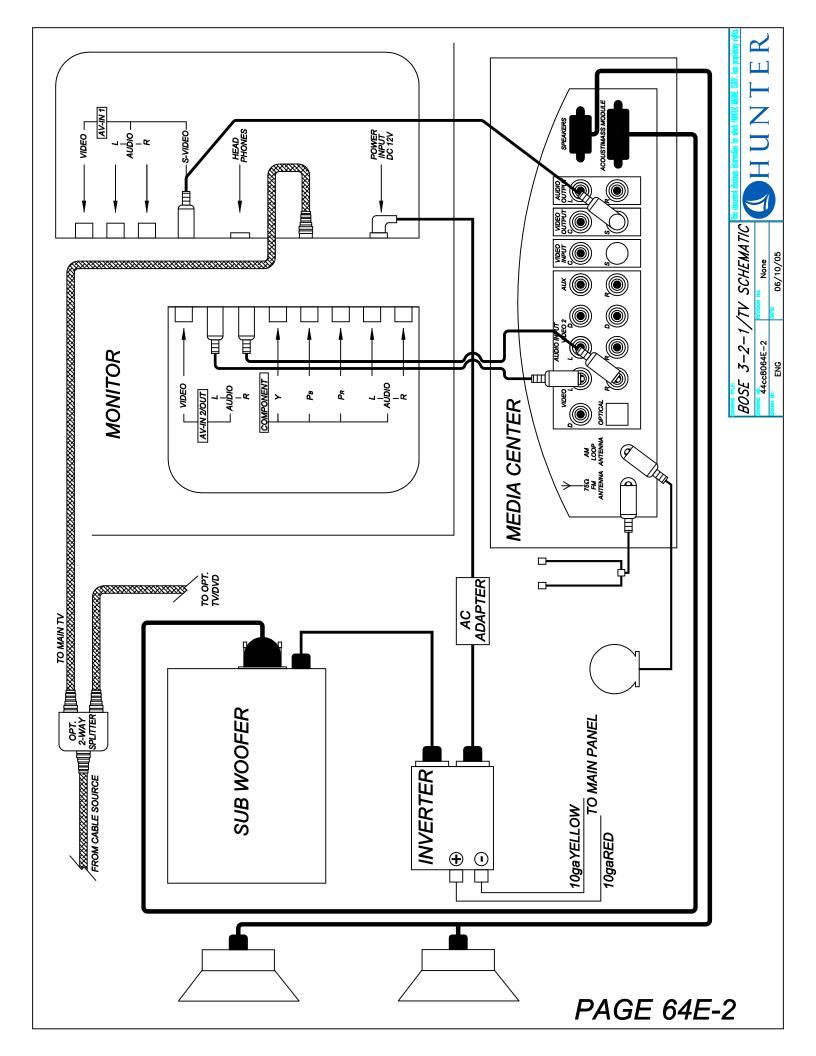
Deutsch DT 3-pin
female housing w/male
E-D&Atsch DT 2-pin
Female housing w/male pins
G-Deutsch DT 2-pin
female housing w/male pins

THE WASHING GRAND INVIDENCE OF BEAUTIFUL WITH THE		コースコエイ	
+100 10011 014111	MAVIC, LANGE BUAV	EVISION NO. None	ME 06/10/05
1100 COLITON ////	IANK MONITOR SCHEMATIC; 1	DRAWNG NO. 44cc8064D-1	DRAWN BY: ENG

PAGE 64D-1









OPTIONAL FWD/AFT STEREO LAYOUT 4268064E-3

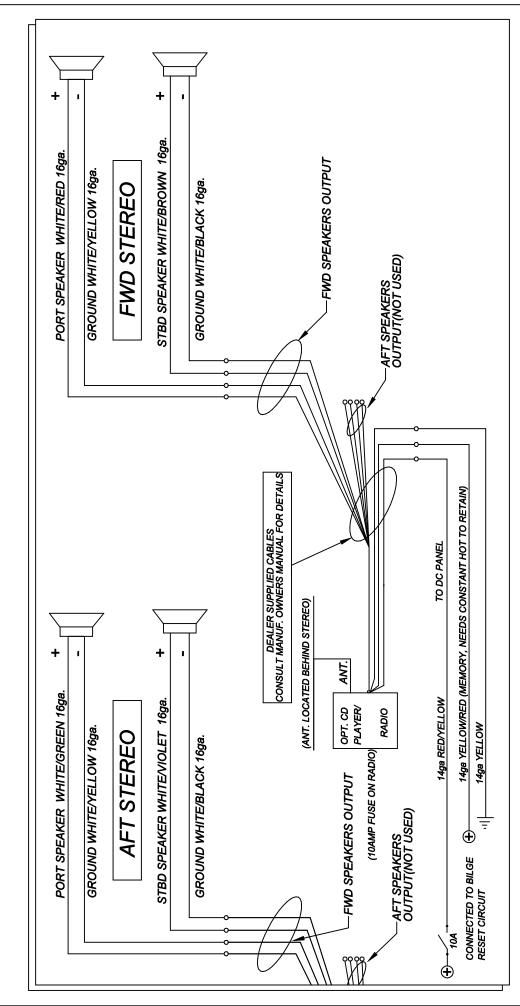
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**©** 

③ AFT STEREO POWER LEAD 4 DC DISTRIBUTION BOX

⑤ FWD STEREO POWER LEAD⑥ FWD STEREO CD PLAYER⑦ FWD STEREO SPEAKERS(MOUNTED IN HEADLINER) ② AFT STEREO SPEAKERS (MOUNTED IN NIGHT STANDS) ① AFT STEREO CD PLAYER

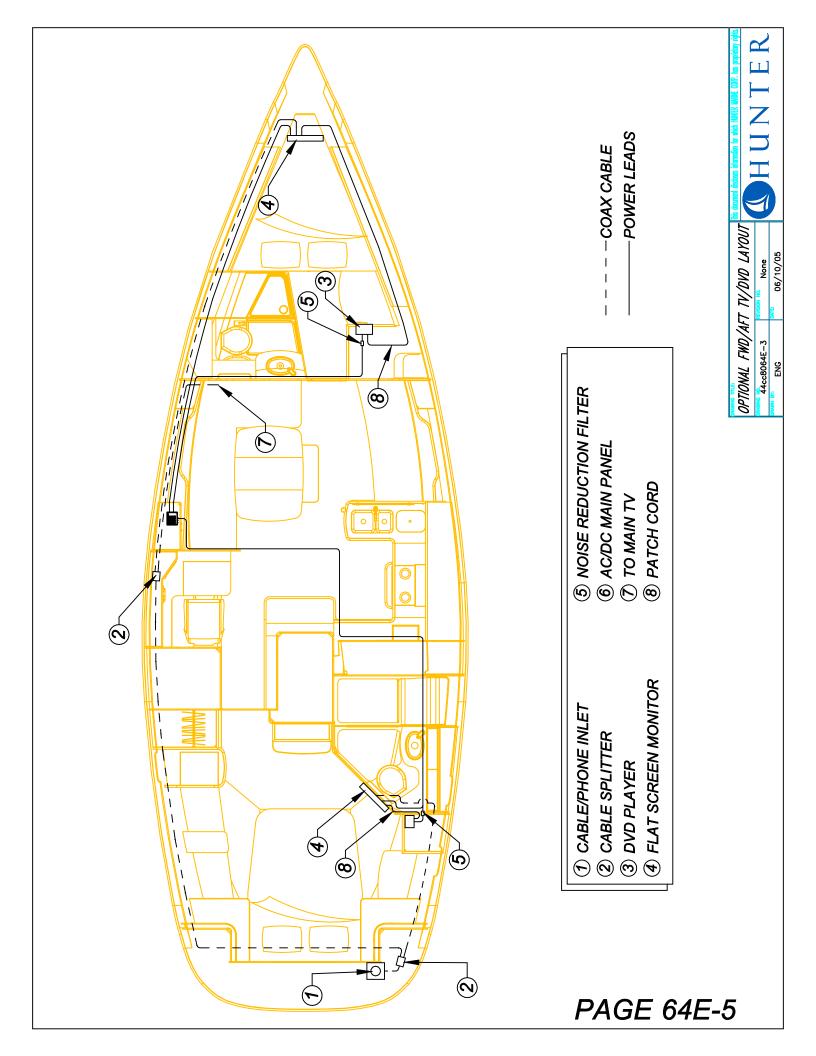
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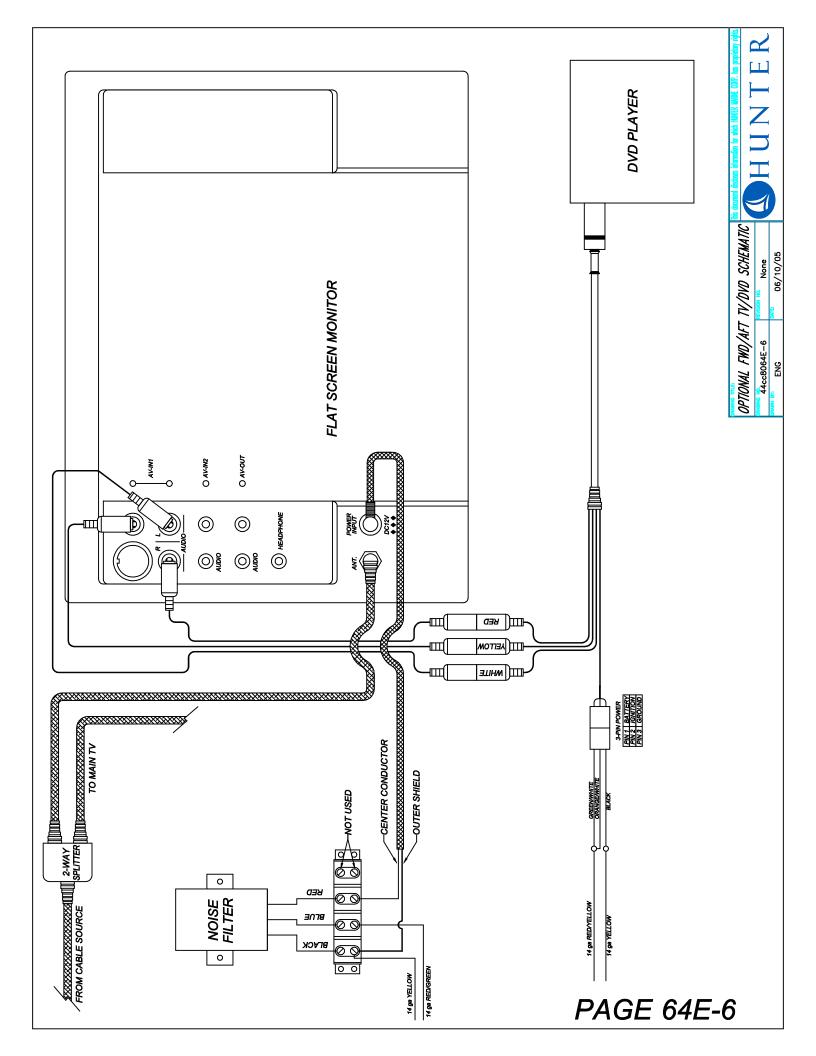


NOTE:

THE FWD AND THE AFT STEREOS ARE WIRED THE SAME. THE ONLY DIFFERENCE IS THE COLOR OF THE POSITIVE SPEAKER LEAD

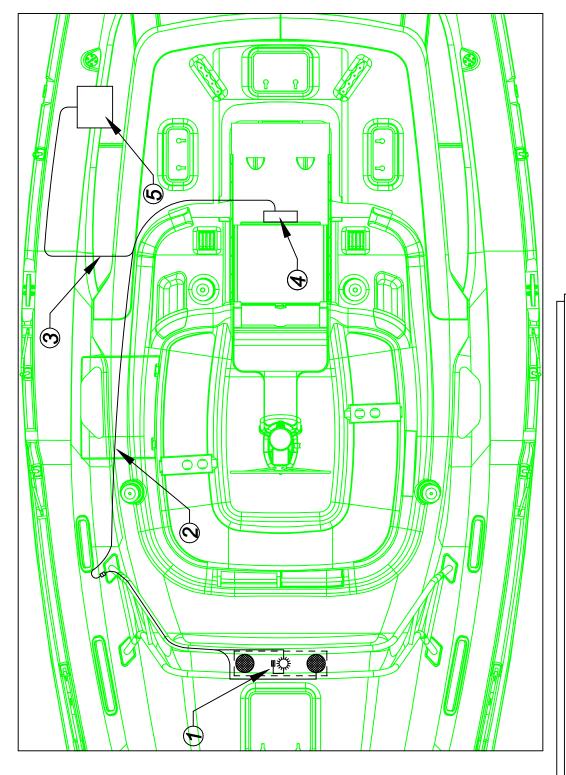
PAGE 64E-4





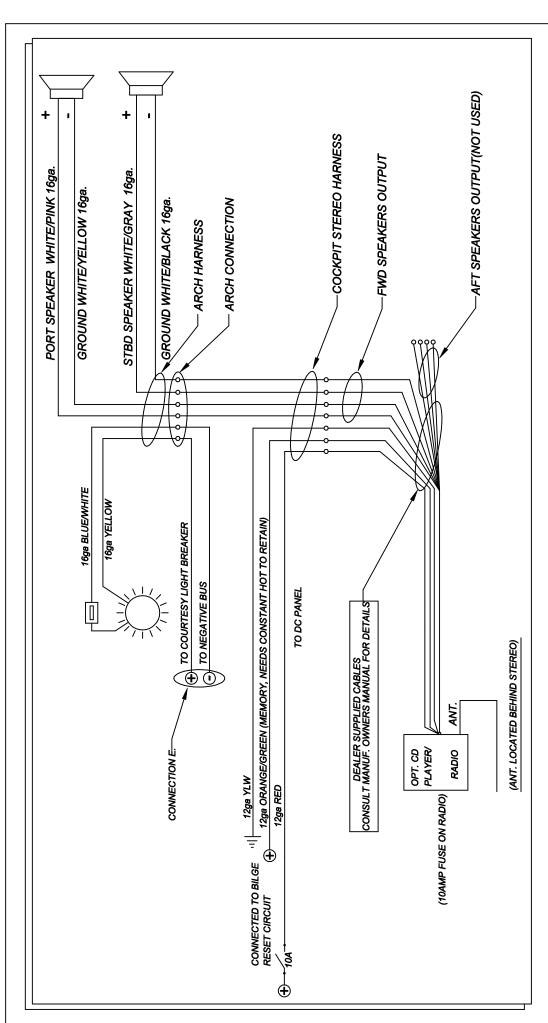


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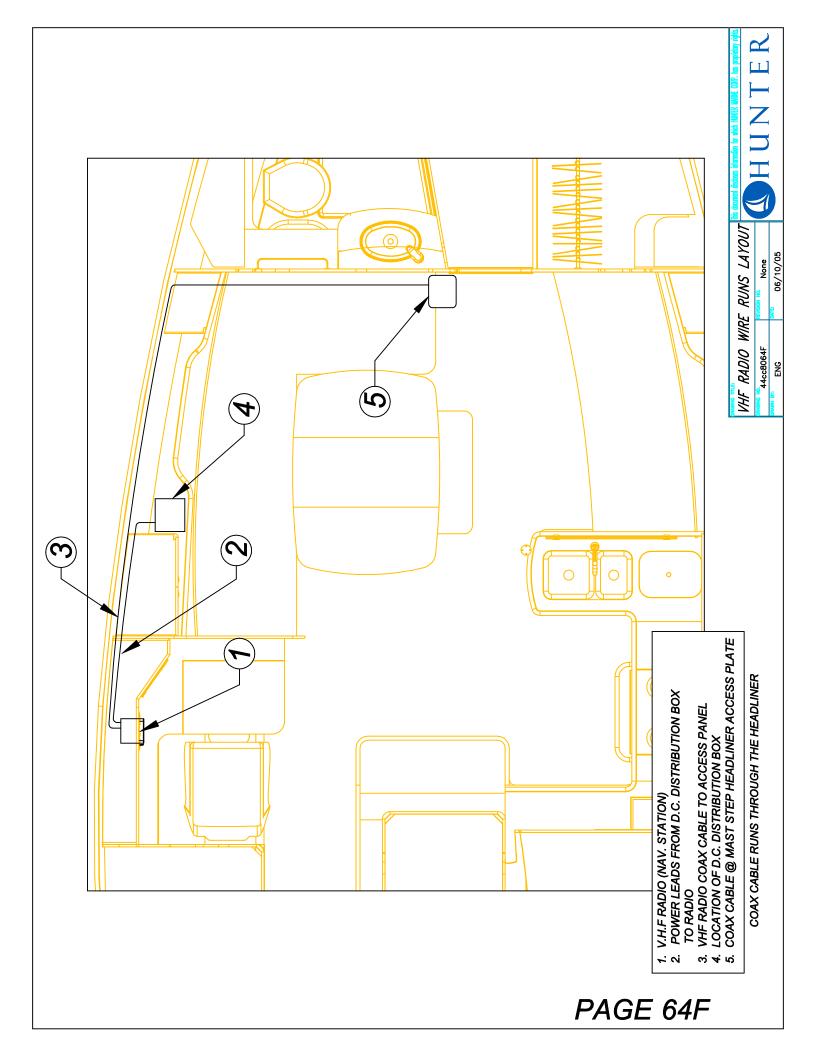
SPEAKER POD W/LIGHT (MOUNTED ON ARCH)
 SPEAKER AND LIGHT WIRE RUN
 POWER LEADS
 STEREO CD PLAYER
 D.C. DISTRIBUTION BOX

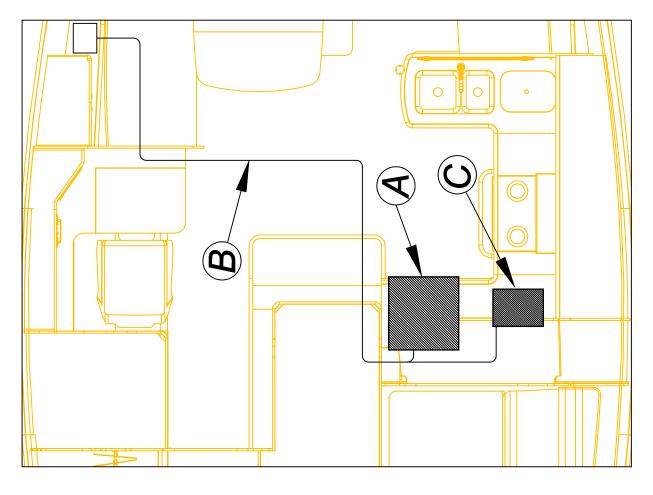
PAGE 64E-7

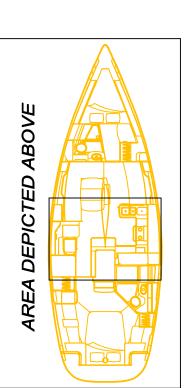




**PAGE 64E-8** 







HUNTER

REFRIGERATION SYSTEM LAYOU,

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06/10/05

NOTE: CONSULT PRODUCT MANUAL FOR OPERATING THE REFRIGERATOR AND FREEZER UNITS.

W/BUILT IN COMPRESSOR POWER RUN TO D.C. DISTRIBUTION BOX OPTIONAL TOP LOAD FREEZER

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**REFRIGERATOR/FREEZER** 

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PAGE 64G

# BASIC OPERATING INSTRUCTIONS:

## LOWERING ANCHOR...

- ① TURN ON HOUSE BATTERY SWITCH AT NAV. STATION.
- ③ ENSURE THE RESET BREAKER @ NAVIGATION STATION IS "SET"
- 4 PUSH WINDLASS "DOWN" BUTTON AT ANCHOR WELL LOCKER.

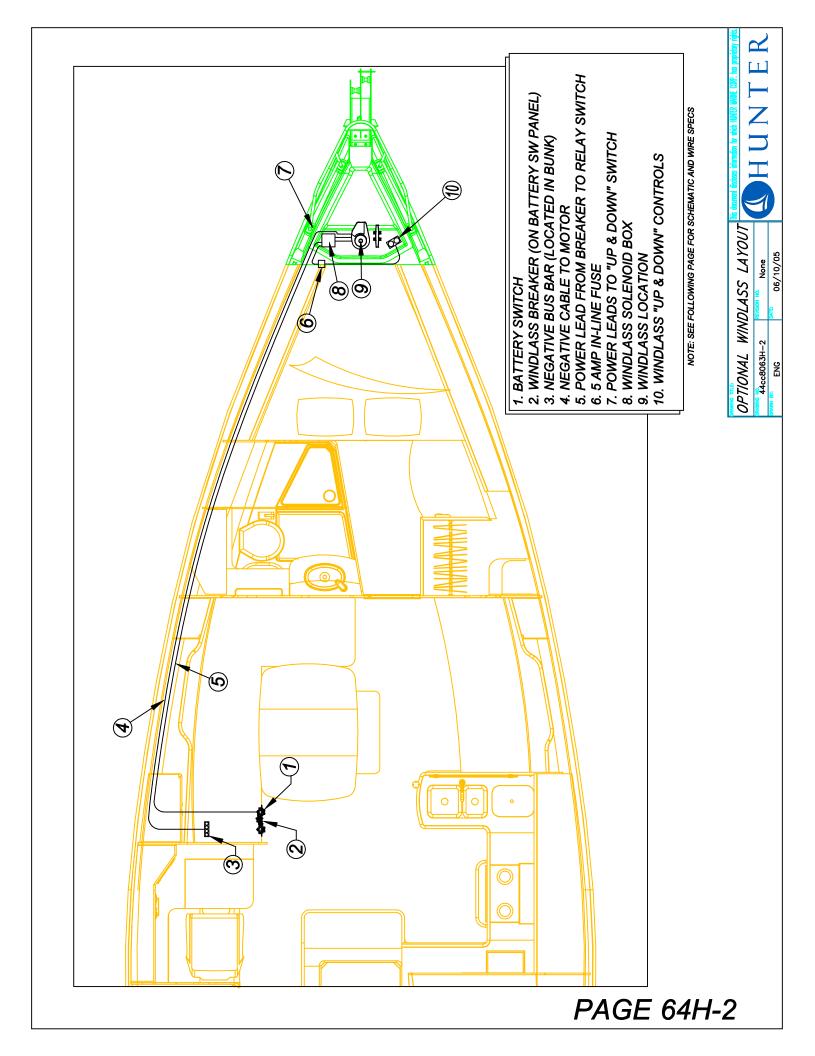
NOTE: "BUMP" SWITCH UNTIL ANCHOR CLEARS ANCHOR ROLLER AND HULL BEFORE LETTING ANCHOR DOWN FREELY.

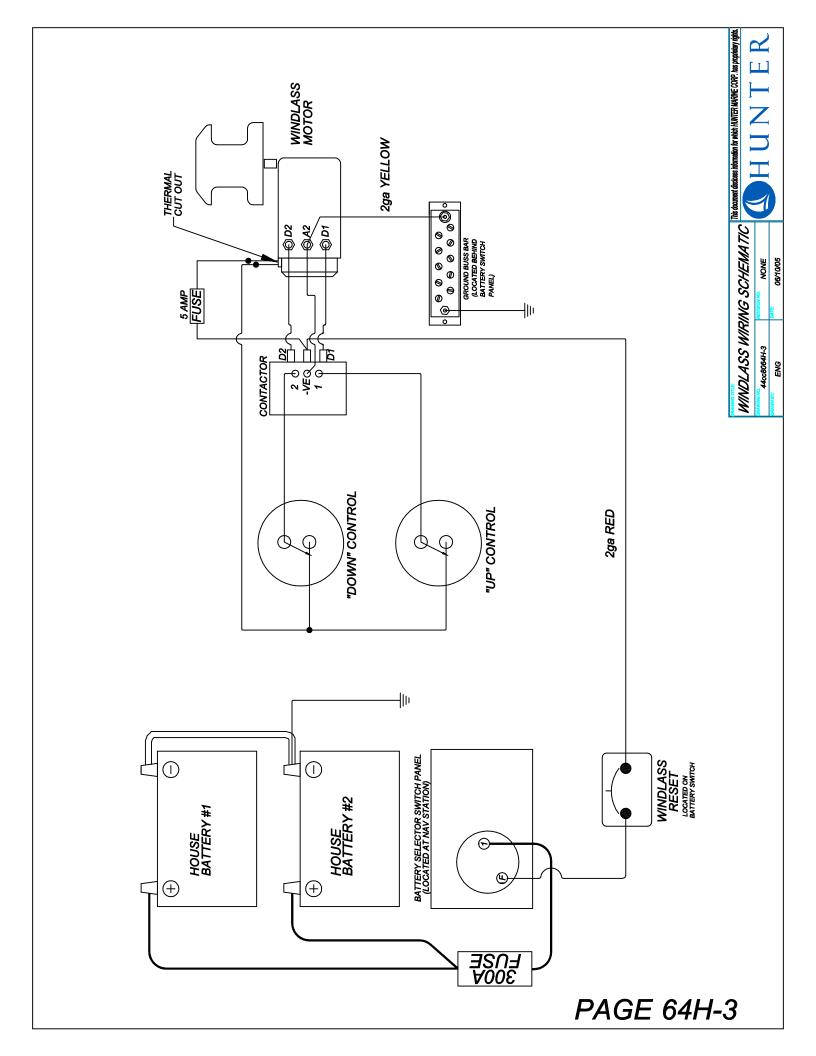
### RAISING ANCHOR....

- (1) START BOAT ENGINE, THIS WILL ALLOW CONTROL OF BOAT WHEN ANCHOR BECOMES FREE, AS WELL AS REDUCING LOAD ON BATTERY
- (2) SAME AS STEP #1 OF LOWERING ANCHOR
- (3) SAME AS STEP #2 OF LOWERING ANCHOR
- (4) PUSH WINDLASS "UP" BUTTON (LOCATED-NEXT TO "DOWN BUTTON" BEING CAREFUL AS THE ANCHOR APPROACHES THE HULL AND ANCHOR ROLLER) UNTIL THE ANCHOR RESTS IN THE STEMHEAD PROPERLY.

NOTE: IF IT APPEARS THERE IS NO POWER
TO THE WINDLASS, CHECK RESET BRKR. AT
THE NAV. STATION.
IF WINDLASS BECOMES INOPERABLE
ELECTRICALLY, A MANUAL WINCH HANDLE
IS SUPPLIED, SEE THE "WINDLASS
MANUAL" SUPPLIED IN YOUR OWNERS MANUAL
PACKAGE FOR INSTRUCTIONS.







# SECTION 641... OPTIONAL ELEC. HALYARD SYSTEM

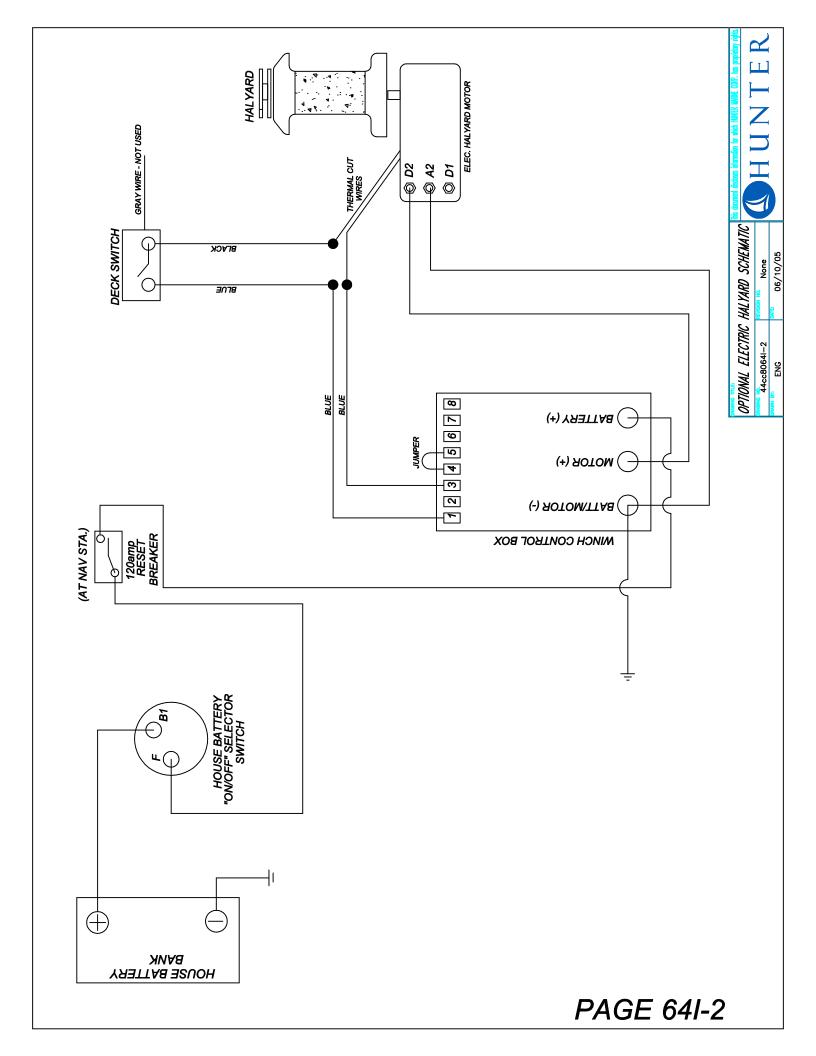
# BASIC OPERATING INSTRUCTIONS:

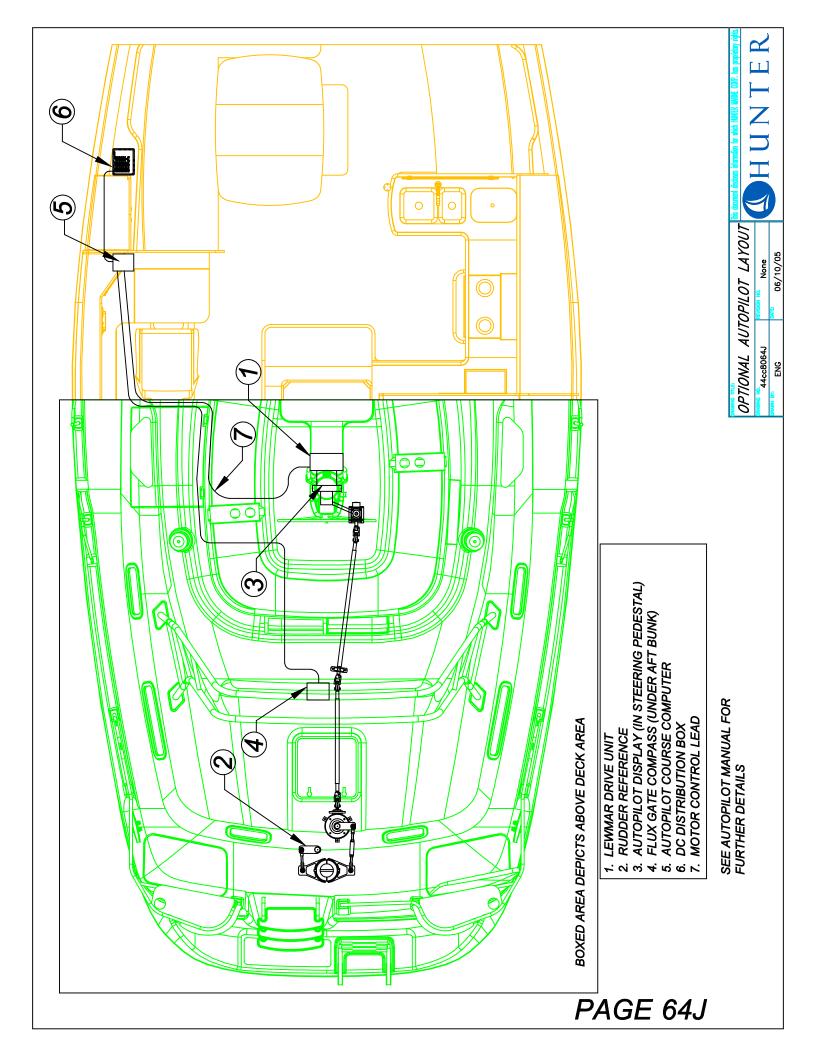
1) TURN THE HOUSE BATTERY SELECTOR SWITCH TO THE "ON" POSITION.

2 HAL YARD SWITCH ON DECK SHOULD NOW OPERATE WINCH

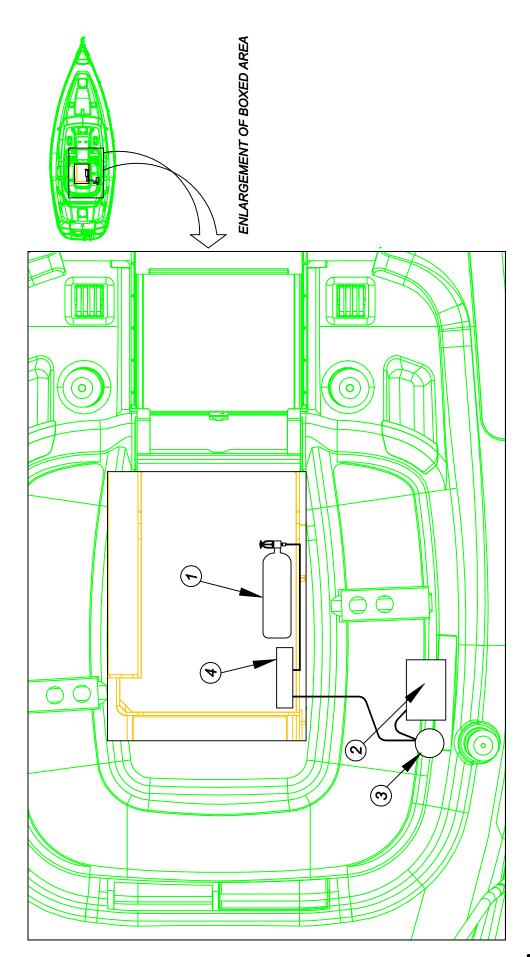
NOTE: IF IT APPEARS THERE IS NO POWER TO THE WINCH, CHECK RESET BRKR. AT THE NAV. STATION. IF WINCH BECOMES INOPERABLE ELECTRICALLY, A MANUAL WINCH HANDLE IS SUPPLIED, SEE THE "WINCH MANUAL" SUPPLIED IN YOUR OWNERS MANUAL PACKAGE FOR INSTRUCTIONS





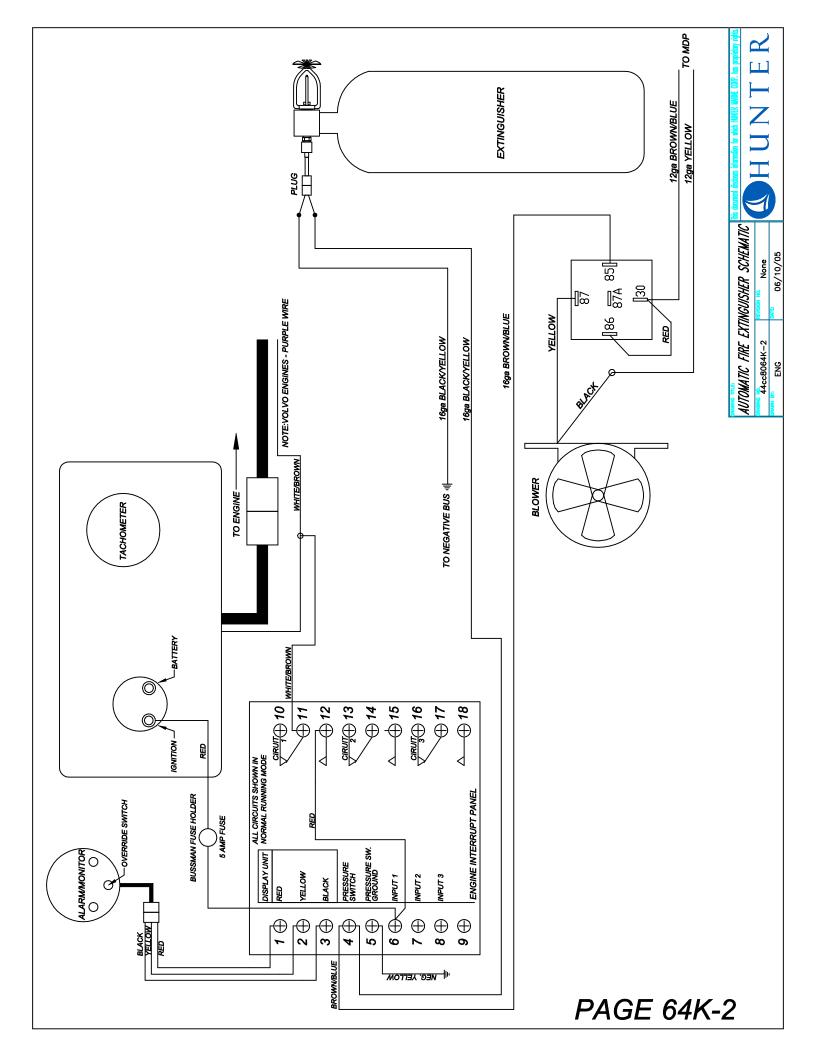






AUTOMATIC FIRE EXTINGUISHER (LOCATED IN ENGINE BOX)

ENGINE INTERRUPT CONTROL BOX (2) ENGINE PANAL(3) DISPLAY(4) ENGINE INTERRU





OPTIONAL BOW THRUSTER SYSTEM LAYOUI

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### IMPORTANT NOTES:

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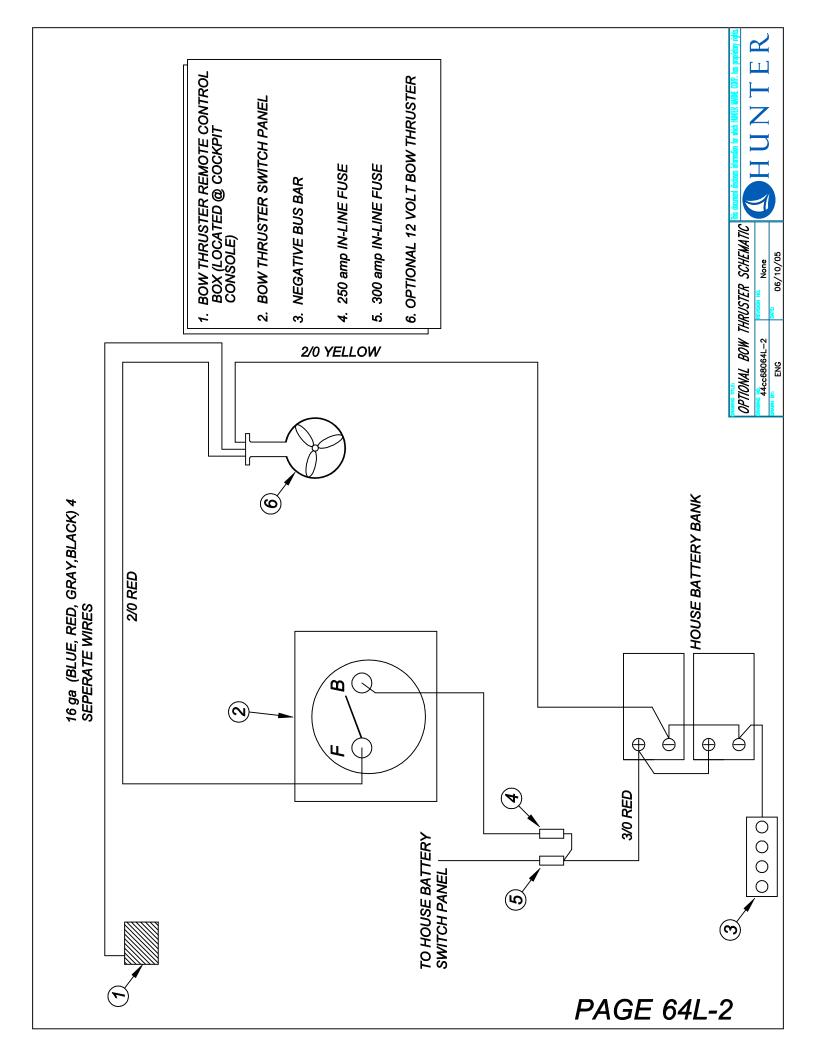
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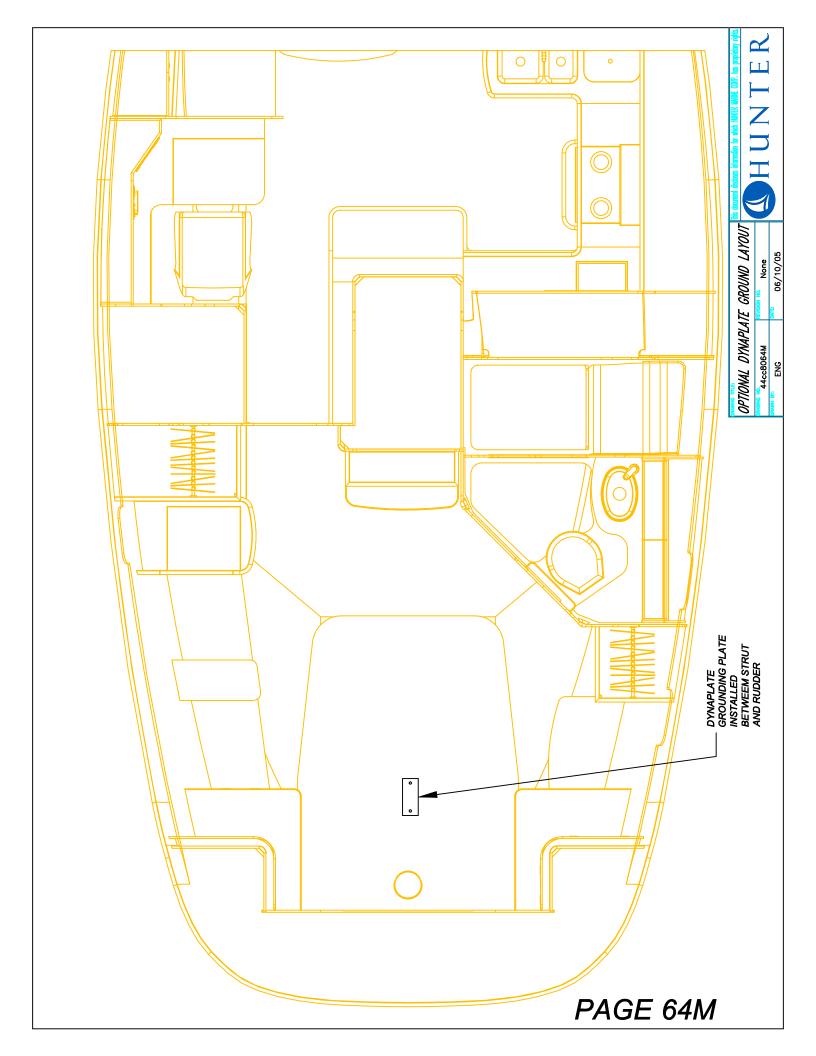
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- 1. SEE PAGE 63L-2 FOR MORE DETAILS AND A SCHEMATIC FOR THE OPTIONAL BOW THRUSTER AND ITS COMPONENTS.
  2. SEE BOW THRUSTER OWNERS MAUNAL FOR GUIDELINES, INSTRUCTIONS AND MAINTENANCE (EXOIL FILL RESERVOIR AND BATTERY STATUS WHEN NOT IN USE.)

- BOW THRUSTER REMOTE CONTROL LOCATION (ON COCKPIT CONSOLE)
  REMOTE WIRE RUNS (4 WIRES)
  NEGATIVE ON HOUSE BATTERY
  BOW THRUSTER SWITCH PANEL
  250 AMP FUSE
  BOW THRUSTER
  BOW THRUSTER MOTOR CABLES
  TO INPUT SIDE OF HOUSE BATTERY FUSE
- . 01 04 44 00 00 K2 00





### MASTER ELECTRICAL AMPERAGE DATA

12V.D.C. SYSTEM	
CIRCUIT/BREAKER	AMPERAGE
D.C. MAIN	75amp
PANEL LIGHTS	5amp
CABIN LIGHTS	30amp
COURTESY LIGHTS	10amp
TANK INDICATOR	5amp
WATER PRESSURE	15amp
SHOWER SUMP	15amp
MACERATOR	20amp
FREEZER	15amp
ENTERTAINMENT	40amp
REFRIGERATION	15amp
L.P. GAS	5amp
WINDLASS (SWITCH)	5amp
INSTRUMENTS	5amp
G.P.S.	5amp
V.H.F.	10amp
AUTO-PILOT	25 amp
ANCHOR LIGHT	5amp
STEAMING LIGHT	5amp
DECK LIGHT	10amp
RUNNING LIGHTS	10amp
COMPASS (TIES TO RUN. LIGHTS)	
HOUSE BATTERY CABLES	300amp
ENGINE STARTER CABLE	NONE
WINDLASS (MOTOR) CABLE	90 amp

120V.A.C. SYSTEM	
SHORE POWER A.C. MAIN/S	30 amp
OUTLETS	15amp
MICROWAVE OVEN	15amp
WATER HEATER	15amp
BATTERY CHARGER	15amp
INVERTER	INTERNAL
AIR CONDITIONING, FWD	25amp
AIR CONDITIONING. AFT	20amp
AIR COND. RELAY PUMP	5amp

230V.A.C. SYSTEM (ON SELECT OVERSEAS MODELS ONLY)			
SHORE POWER A.C. MAIN/S	15 amp		
OUTLETS	10amp		
MICROWAVE OVEN	10amp		
WATER HEATER	10amp		
BATTERY CHARGER	10amp		
INVERTER	N/A		
AIR CONDITIONING	15amp		
AIR CONDITIONING	10amp		
AIR COND. RELAY PUMP	5amp		

### MASTER ELECTRICAL WIRING/CABLE DATA

DESCRIPTION	WIRE SIZE	WIRE COLOR
LPG SWITCH/POWER	16 gauge	ORANGE/RED
TANK DISPLAY	16 gauge	RED/ORANGE
FUEL SENDER	16 gauge	PINK,ORANGE/WHITE YELLOW
NEGATIVE FWD WATER SENDER	16 gauge 16 gauge	ORANGE/BLUE, PINK/BLACK
NEGATIVE	16 gauge	YELLOW
WATER PUMP	12 gauge	BROWN
NEGATIVE	12 gauge	YELLOW
VACCU FLUSH	10 gauge	BROWN/PINK
NEGATIVE	16 gauge	YELLOW
AFT WASTE SENDER	16 gauge	ORANGE/GREEN, PINK/GRAY
NEGATIVE	16 gauge	YELLOW
AFT SUMP PUMP	12 gauge	BROWN/BLACK
NEGATIVE	12 gauge	YELLOW
FWD MACERATOR	10 gauge	BROWN/WHITE
NEGATIVE	16 gauge	YELLOW
VHF	16 gauge	RED/WHITE
NEGATIVE	16 gauge	YELLOW
COURTESY LIGHTS	16 gauge	BLUE/WHITE
NEGATIVE	16 gauge	YELLOW
CABIN LIGHTS	10-14 gauge	BLUE
NEGATIVE	16 gauge	YELLOW
PORT FWD SPEAKERS	16 gauge	WHITE/RED
STBD FWD SPEAKERS	16 gauge	WHITE/BROWN
PORT AFT SPEAKER	16 gauge	WHITE/GREEN
STBD AFT SPEAKER	16 gauge	WHITE/VIOLET
PORT ARCH SPEAKER	16 gauge	WHITE/PINK
PORT NEGATIVE	16 gauge	WHITE/YELLOW
STBD ARCH SPEAKER	16 gauge	WHITE/GRAY
STBD NEGATIVE	16 gauge	WHITE/BLACK
COMPASS BOW LIGHT	16 gauge	GRAY/WHITE
STERN LIGHT	16 gauge	GRAY/YELLOW
NEGATIVE	16 gauge	YELLOW
MAST LIGHT	16 gauge	GRAY
STEAMING LIGHT	16 gauge	GRAY/GREEN
ANCHOR LIGHT	16 gauge	GRAY/RED
HOUSE BATTERY	2/0	RED
NEGATIVE	2/0	YELLOW
AC/DC PANEL	6 gauge	ORANGE/RED
NEGATIVE	6 gauge	YELLOW
ENGINE	2 gauge	RED
HALYARD	2 gauge	YELLOW
T.V.	10 gauge	RED
NEGATIVE	10 gauge	YELLOW
REFRIGERATION	10 gauge	RED/BLACK
FREEZER	10 gauge	RED/WHITE
NEGATIVE STEREO/DVD	10 gauge	YELLOW OBANGE/CREEN
STEREO/DVD STEREO POWER	12 gauge 12 gauge	ORANGE/GREEN RED
NEGATIVE		YELLOW
INVERTER GROUND	12 gauge 4 gauge	GREEN/YELLOW
WINDLASS SWITCH	4 gauge 16 gauge	TAN
MANUAL BILGE	12 gauge	BROWN/RED
AUTO BILGE	12 gauge	BROWN/ORANGE
NEGATIVE	12 gauge	YELLOW
AFT SUMP PUMP	12 gauge	BROWN/BLACK
FWD SUMP PUMP	12 gauge	BROWN/YELLOW
AUTO PILOT	8 gauge	RED
NEGATIVE	8 gauge	YELLOW
CHAINPLATE GROUND	4 gauge	GREEN/YELLOW
	8 gauge	ORANGE/RED
BATTERY CHARGER # 1		

### 120V.A.C. (230V. OVERSEAS MODELS) SYSTEM TROUBLESHOOTING GUIDE

COMPONENT	SYMPTOM	POSSIBLE SOLUTION/S
SHORE POWER "A"	NO POWER TO PANEL	SEE "POWER SYSTEM OPERATIONS" PAGE 63A-2
		CHECK DOCKSIDE BREAKER AND/OR BREAKER #1
		LOCATED IN AFT CABIN OR COCKPIT LOCKER.
		CHECK "RESETS" ON (OPT.)INVERTER (SEE "INVERTER MAN.")
OUTLETS #1 & 2	NO POWER	SEE "POWER SYSTEM OPERATIONS" PAGE 63A-2
		IS OUTLET BREAKER/S ON?
		CHECK RESET ON G.F.I. OUTLETS AT
		GALLEY & AT NAV. STATION.
		CHECK RESETS ON (OPT.) INVERTER (SEE "INVERTER MAN.")
MICROWAVE	NO POWER	IS BREAKER ON?
		SEE "POWER SYSTEM OPERATIONS" PAGE 63A-2
		IS MICROWAVE ON?
		SEE "MICRO MANUAL"
WATER HEATER	NO POWER	IS BREAKER ON?
		SEE "POWER SYSTEM OPERATIONS" PAGE 63A-2
	WON'T HEAT WATER	CHECK "RESET" ON HEATER SEE "WATER
	WORTHEAT WATER	HEATER MANUAL" FOR LOCATION.
	WATER TOO COLD/HOT	SEE "WATER HEATER MANUAL" FOR
	WATER TOO GOLDMOT	THERMOSTAT ADJUSTMENT AND/OR
		ELEMENT REPLACEMENT, SEEK QUALIFIED PERSONELL.
BATTERY CHARGER	NOT CHARGING BATTERY/S	IS SHORE POWER "A" ON
(STANDARD)	THO I CHARCON O BATTER 170	IS BATT. CHARGER BREAKER ON?
(6174127412)		IS RESET TRIPPED ON HOUSE BATTERY ON/OFF PANEL
		CHECK FUSES BEHIND HOUSE BATT. ON/OFF PANELS
		ARE BATTERY CONNECTIONS GOOD?
INVERTER/BATT CHARGER	INV. NOT SUPPLYING A.C.POWER	IS INVERTER REMOTE SWITCH AT NAV STATION ON?
(OPTIONAL)		IS DESIRED APPLIANCE BREAKER ON?
(IN INVERTER MODE)	INV. ON BUT UNABLE TO OPERATE	IS BATTERY VOLTAGE LOW? SEE VOLTAGE
(	DESIRED APPLIANCE/S	DISPLAY ON INVERTER REMOTE PANEL.
	DEGINED 711 1 211 11 10 27 0	ARE YOU ASKING THE INVERTER TO POWER
		MORE THAN IT IS CAPABLE? SEE "INVERTER
		MANUAL" FOR INFORMATION REGARDING
		POWER OUTPUT CAPABILITIES.
		CHECK "RESETS ON (OPT.) INVERTER (SEE "INVERTER MAN.")
INVERTER/BATT CHARGER	NOT CHARGING BATTERY/S	IS SHORE POWER "A".ON?
(OPTIONAL)	NOT CHAROING BATTER 1/3	SEE "POWER SYSTEM OPERATIONS" PAGE 63A-2
(IN CHARGING MODE)		IS BATTERY SELECTOR SWITCH IN "ON" POSITION?
(114 OF IVITORIAO MODE)		CHECK IN-LINE 300amp FUSE AT BATTERY
		ARE BATTERY CONNECTIONS GOOD?
		INVERTER REMOTE SWITCH SHOULD BE IN
		THE "OFF" POSITION. (THIS IS NECESSARY IN THE
		EVENT YOU "LOSE" SHORE POWER, THE INVERTER
		,
		DOESN'T GO INTO INVERT MODE CAUSING BATT./S
		TO DRAIN IF YOU LEFT AN A.C. APPLIANCE ON

### 120V.A.C. (230V. OVERSEAS MODELS) SYSTEM TROUBLESHOOTING GUIDE CONT:

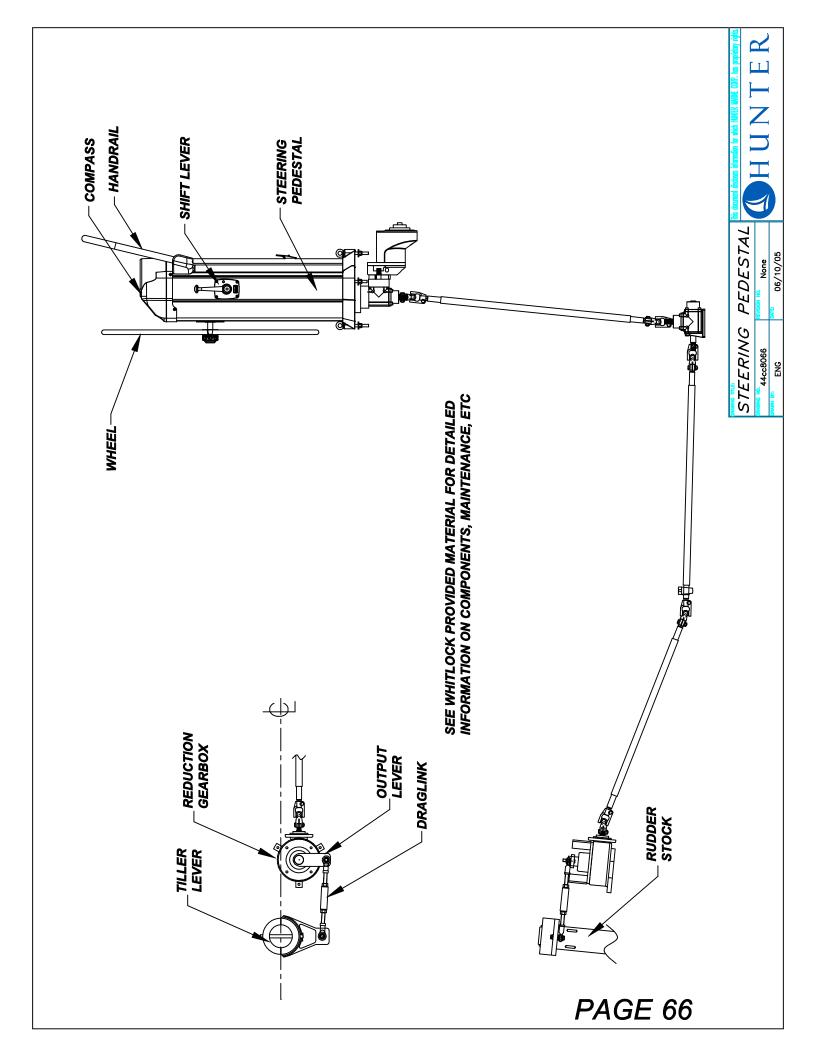
COMPONENT	SYMPTOM	POSSIBLE SOLUTIONS
	NO POWER TO PANEL	SEE "POWER SYSTEMS OPERATION PAGE 63A-2" CHECK DOCKSIDE BREAKER AND/OR BREAKER #2 IN AFT CABIN OR COCKPIT LOCKER
AIR COND.	WON'T TURN ON	IS BREAKER ON? SEE "POWER SYSTEMS OPERATION" PAGE 63A-2 SEE " AIR CONDITIONER" MANUAL
	TURNS ON THEN SHUTS DOWN	IS AIR COND. RAW WATER <b>PICK UP</b> SEACOCK OPEN? IF SO, IS WATER CIRCULATING? SEE PAGE 60 FOR AIR COND. DISCHARGE THRUHULL LOCATION, IF NOT IS AIR COND. PICKUP BEING RESTRICTED BY DEBRIS? IS <b>DISCHARGE</b> SEACOCK OPEN?
	OTHER	SEE "AIR CONDITIONER" MANUAL
	OPTIONAL GENERATOR (APPLIES T	O BOTH "A" & "B" SIDES OF A.C. PANEL)
GENERATOR	NO POWER TO STARTER RUNNING, BUT NO POWER AT PANEL.  WON'T START	IS START BATT. SELECTOR SWITCH ON? IS "GENERATOR BREAKER" ON "A" SIDE OF PANEL ON? (MOVE SLIDE BAR UP TO TURN THIS BREAKER ON). IS "PARALLEL BREAKER" ON "B" SIDE OF PANEL ON? SEE GENERATOR MANUAL DID YOU FOLLOW PROPER STARTING PROCEDURE AS DESCRIBED IN THE "GENERATOR MANUAL"? DO YOU HAVE AN AMPLE AMOUNT OF DIESEL FUEL? REMEMBER THE GENERATOR FUEL PICKUP TUBE IS SHORTER THAN THE PICKUP TUBE FOR THE ENGINE, THIS PREVENTS GENERATOR FROM DRAINING TANK SINCE ENGINE POWER IS MORE IMPORTANT THAN GENERATOR POWER. REFER TO GENERATOR MANUAL FOR POSSIBLE
	GEN. STARTS THEN SHUTS DOWN	FUSE OR RESET ON GENERATOR. IS RAW WATER PICKUP SEACOCK OPEN, OR OBSTRUCTED?

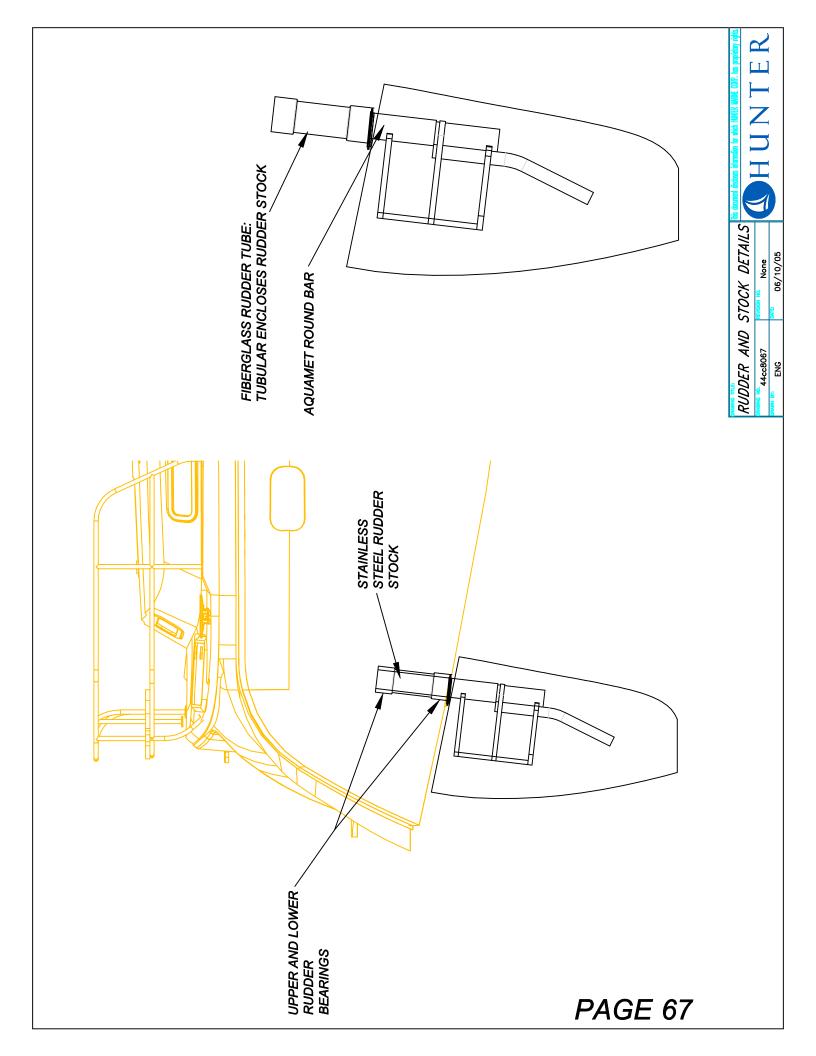
### 12V.D.C. SYSTEM TROUBLESHOOTING GUIDE

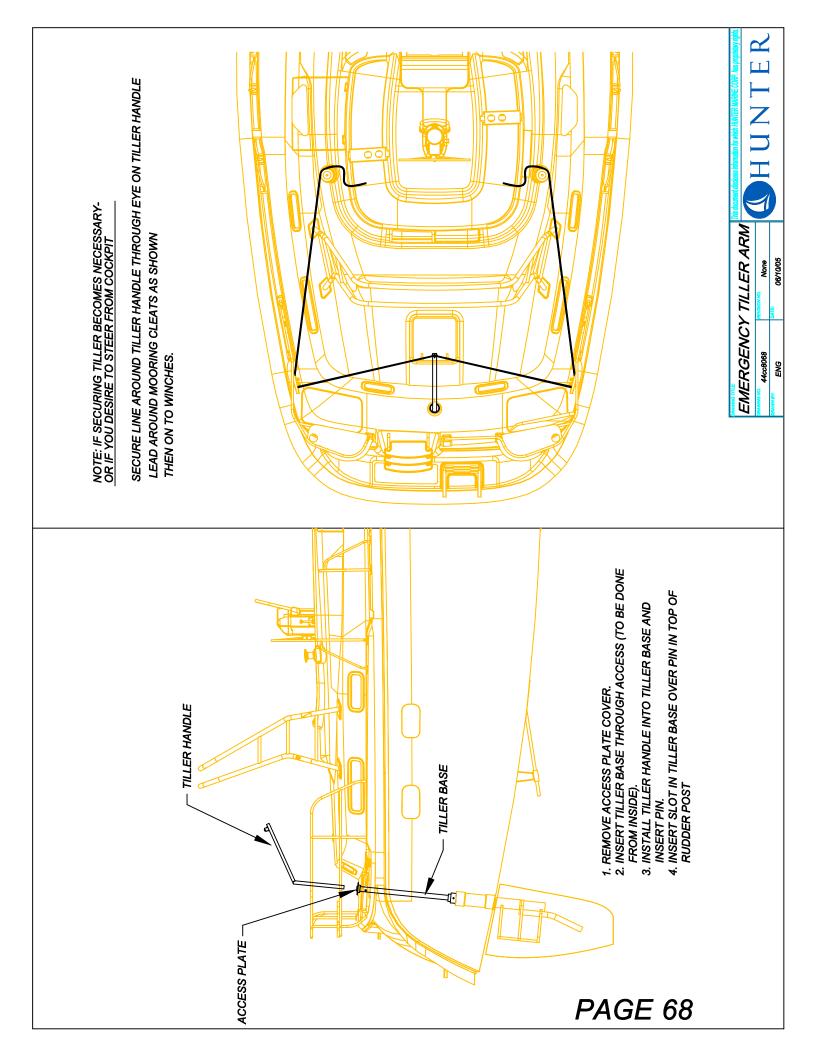
THIS IS TO POWER PANI FOR CHARGING, SEE PAGE 63A-2	IEL ON THE HOUSE BATTERY SWITCH TO THE "ON" POSITION TO SUPPLY POWER TO D.C. PANEL  IF NO POWER TO PANEL: CHECK THE 300 amp IN LINE FUSES AT THE HOUSE BATTERIES  OR BATTERY CONNECTIONS IF NECESSARY.		
COMPONENT	SYMPTOM	POSSIBLE SOLUTION/S	
D.C. MAIN	NO POWER TO PANEL	SEE "TO POWER PANEL" ABOVE BATTERY/S CHARGED?	
PANEL LIGHTS	PANEL WON'T ILLUMINATE	SEE "TO POWER TO PANEL" ABOVE BATTERY TERMINALS CLEAN? SEEK QUALIFIED PERSONNEL	
CABIN LIGHTS	WON'T ILLUMINATE	SEE "TO POWER PANEL" ABOVE BULB/S NEED REPLACING?	
COURTESY LIGHTS (AT CRTSY. LIGHTS MAIN SALON)	WON'T ILLUMINATE	SEE "TO POWER PANEL" ABOVE BULBS/S NEED REPLACING?	
COURTESY LIGHTS ENGINE BOX COMP. COCKPIT CONSOLE	WON'T ILLUMINATE	SEE "TO POWER PANEL" ABOVE PLUNGER SWITCH STUCK? IS SWITCH @ CONSOLE "ON"?	
TANK INDICATOR	TANK LEVEL GAUGES DON'T ILLUMINATE TANK LEVEL DISPLAYED IS INCORRECT	SEE "TO POWER PANEL" ABOVE TANK SENDING UNIT NEEDS CLEANING	
WATER PRESSURE	NO POWER CYCLES ON/OFF EXCESSIVELY	SEE "TO POWER PANEL" ABOVE FAUCETS OFF? LEAK IN SYSTEM SEE PAGE 57A, B, C FOR SYSTEM LAYOUT	
SHOWER SUMP	WON'T PUMP WHEN SUMP BOX FILLED (PUMP WON'T QUIT RUNNING) PUMP MAKES NOISE, DOESN'T PUMP PUMP RUNS BUT DOESN'T PUMP	SEE "TO POWER PANEL" ABOVE IS FLOAT SWITCH STUCK? DEBRIS IN PUMP IMPELLER? DISCHARGE HOSE CLOGGED? SEACOCK DISCHARGE VALVE CLOSED?	
MACERATOR	PUMP MAKES NOISE, DOESN'T PUMP	IS DISCHARGE SEACOCK OPEN? IS WASTE DECK FITTING SECURE, IS IT PULLING AIR THRU? IF SO REPLACE 0- RING ON CAP. IS TANK VENT (HULL FITTING) CLOGGED? SEE PAGE 60A-1,A-2 FOR LOCATIONS LODGED DEBRIS, TURN OFF POWER TO PUMP, INSERT SCREWDRIVER INTO PUMP ARMATURE AT END OF PUMP AND TURN TO DISLODGE DEBRIS	
STEREO	WON'T TURN ON STEREO TURNS ON, NO SOUND VCP WON'T PLAY	SEE "TO POWER PANEL" ABOVE IS STEREO UNIT ON? ARE VOLUME CONTROLS TURNED DOWN? SEE VIDEO PLAYER OWNERS MANUAL	
ENTERTAINMENT SYSTEM	WON'T TURN ON TV TURNS ON, NO SOUND	SEE "TO POWER PANEL" ABOVE ARE TV / DVD UNITS ON? ARE VOLUME CONTROLS TURNED DOWN TURNED DOWN?	
REFRIGERATION	WON'T GET COLD  UNIT KEEPS TURNING OFF	SEE "TO POWER PANEL" ABOVE. IS THERMOSTATS TURNED ON? IS RAW WATER INTAKE VALVE CLOSED? IS SEACOCK DISCHARGE VALVE CLOSED? IS FILTER CLEAN? IS THRU HULL CLOGGED? SEEK QUALIFIED PERSONNEL	
BILGE PUMP	WON'T OPERATE AUTO OR MANUAL PUMP MAKES NOISE, DOESN'T PUMP	BATTERY LEVEL O.K.? SEE VOLT METER CHECK BILGE RESET ON BATTERY SWITCH PANEL. BATTERY CONNECTIONS GOOD? DEBRIS IN PUMP IMPELLER?	
NOTE: COMPONENT/S F	PUMP RUNS BUT DOESN'T DISCHARGE FAILURE COULD ALSO BE THE RESULT OF A PO	DISCHARGE HOSE CLOGGED?	
FOR BUS BAR LOCATION	N. DUE TO VIBRATION, WEATHER CONDITIONS HESE TERMINALS (BY QUALIFIED PERSONNEL)	S, ECT. OCCASIONAL INSPECTION, CLEANING	

### **SYSTEM TROUBLESHOOTING GUIDE CONT:**

COMPONENT	SYMPTOM	POSSIBLE SOLUTION/S
WINDLASS	UP/DOWN CONTROLS DON'T OPERATE	SEE "TO POWER PANEL" PREV. PAGE
	WINDLASS	WINDLASS SWITCH AT WINDLASS RESET
		PANEL ON? IS RESET TRIPPED?
INSTRUMENTS	REPEATERS DON'T OPERATE	SEE "TO POWER PANEL" PREV. PAGE
		DO TRANSDUCERS NEED CLEANING?
		SEE INSTRUMENTS MANUAL
VHF RADIO	WON'T OPERATE	SEE "TO POWER PANEL" PREV. PAGE
		RADIO TURNED ON?
	TURNS ON, WON'T TRANSMIT/RECEIVE	ANTENNA CONNECTED PROPERLY?
OPTIONAL AUTO PILOT	WON'T OPERATE	SEE "TO POWER PANEL" PREV. PAGE
	WON'T HOLD STEADY COURSE	IS THERE ANY METAL OBJECTS NEAR
		THE FLUX GATE COMPASS LOCATED IN
		THE STBD. AFT MAIN BUNK COMP?
	CONSTANTLY ADJUSTING HELM	SENSITIVITY SETTING SET TO HIGH, SEE
		"AUTO PILOT MANUAL" FOR SENSE. ADJ.
OPTIONAL GENERATOR	WON'T OPERATE	SEE "TO POWER PANEL" PREV. PAGE
BLOWER		IS UNIT "ON"?
BILGE PUMP	WON'T OPERATE AUTO OR MANUAL	BATTERY LEVEL O.K.? SEE VOLT METER
		CHECK BILGE RESET ON BATTERY
		SWITCH PANEL UNDER CHART TABLE.
		BATTERY CONNECTIONS GOOD?
	PUMP MAKES NOISE, DOESN'T PUMP	DEBRIS IN PUMP IMPELLER?
	PUMP RUNS BUT DOESN'T DISCHARGE	DISCHARGE HOSE CLOGGED?
		SEACOCK DISCHARGE VALVE CLOSED?
ANCHOR, STEAMING,	WON'T ILLUMINATE	SEE "TO POWER PANEL" PREV. PAGE
DECK, & RUNNING		CHECK CONNECTIONS IN ACCESS
LIGHTS		PANEL TOP OF COMPRESSION POST.
		BULBS NEED REPLACING?
12 V.D.C.AUX. PLUG	NO POWER PRESENT	CHECK IN-LINE FUSE BACK OF PANEL
VOLT METER	NO VOLTAGE DISPLAYED	SEE "TO POWER PANEL" PREV. PAGE
		CK. FUSES ON HSE. BATT. ON/OFF PANEL
		ARE BATTERY CONNECTIONS GOOD?
		HAVE BATTERIES CHECKED
		HAVE METER CHECKED BY QUALIFIED
		PERSONNEL.







### Use Of 45CC Emergency Tiller System



### **Safety First:**

Please read owners manual before proceeding with emergency tiller system

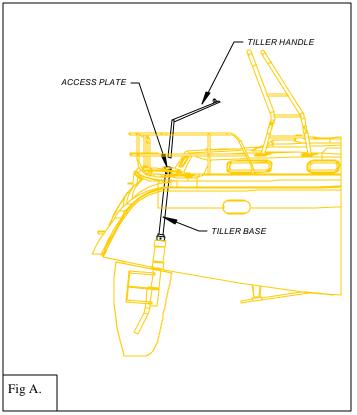


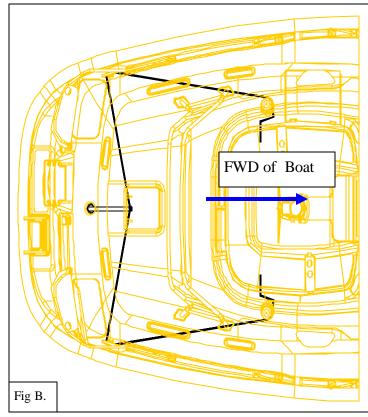
### Things To Check Before Using Emergency Tiller System:

- 1. If your boat is equipped with autopilot, disengage the system.
- 2. Open aft cabin quarter berth bunk lid to ensure safety pin on rudder quadrant is secured.
- 3. Check rudder quadrant ensure the quadrant will rotate freely until it hits the rudder stops
- 4. If steering gear jams, you will not be able to turn rudder from its quadrant, you need to remove the tie rod that has been secured on starboard side of rudder quadrant. Loosen lock nuts on the both ends of tie rod, then the rudder quadrant should be able to turn freely.
- 5. If the boat is equipped with autopilot, you will need to disconnect rudder angle sensor from rudder quadrant, then the rudder quadrant should turn freely.

### **Emergency Tiller System:**

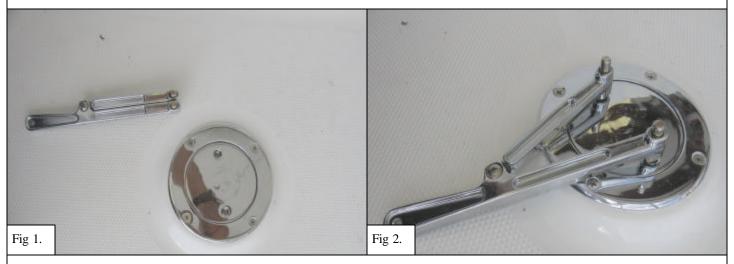
- 1. Use designated wrench to open stainless emergency tiller cover plate. (Fig 1 & 2)
- 2. Use screws driver to pry.
- 3. open aft cabin headliner emergency tiller stainless cover from inside (Fig 3.)
- 4. Remove aft cabin rudder quadrant bunk lid. (Fig 4.)
- 5. Insert Tiller Base through access from outside through deck to rudder quadrant. (Fig 5. & 6)
- 6. Install tiller handle into handle base and insert quick pin. (Fig 7 & 8)
- 7. Insert slot in tiller base over pin in top of rudder post (Fig 6.)
- 8. Secure line around tiller handle through hook eye on tiller handle. ( **Fig 9.**)
- 9. Lead lines port & starboard through mooring cleats then on both aft winches. (Fig 10, Fig A & B).





Page 1 of 3

### Use Of 45CC Emergency Tiller System



Use this wrench to remove this deck rudder post stainless rudder post cover from outside



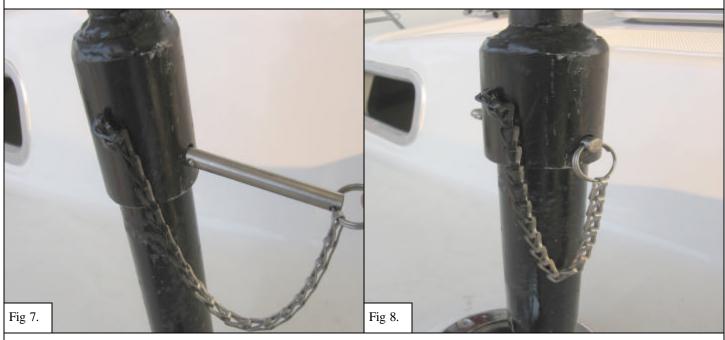
Use screws driver to remove cover plate from QB headliner.

Open aft Cabin bunk lid, the one is close to headboard, rudder quadrant will be seen in this location.

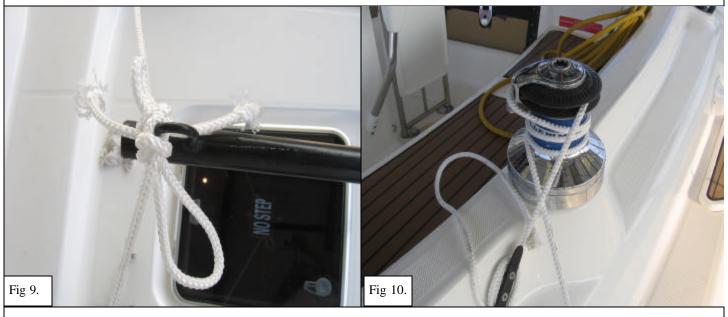


Insert tiller base from outside through deck in aft cabin over pin in top of rudder post then tiller base is interlock with rudder post.

### Use Of 45CC Emergency Tiller System



Install tiller handle to handle base, then insert quick pin to lock handle to tiller base.



Secure lines around tiller handle hook eye then lead the line to port & starboard side cleats then on aft winches

