

F-303 SR1 DIAGRAM INDEX

AC CIRCUITS

BATTERY CHARGER.	102
OUTLETS.	113d
SHOREPOWER.	109
120V 60HZ panel.	109a
220V 50HZ panel.	109b
ZINC SAVER (see 109a & b)	

BONDING

BONDED EQUIPMENT.	120
---------------------------	-----

DC CIRCUITS

ALARM, HIGH WATER.	017
BATTERY CHARGING (ALTERNATORS).	001b
BLOWERS	
engine compartment.	002a
DC SUPPLY SYSTEM.	001a
ENGINE HATCH.	003
HALON (plcmnts & light).	005
HORN.	006
IGNITION	
gas.	007a
diesel.	007b
INSTRUMENTATION	
dash panels.	008a
gauges.	008
LIGHTS	
cabin.	010a
courtesy/engine room.	010b
docking.	010c
floor.	010e
mood.	010g
navigation.	010h
MACERATOR.	011
plumbing.	011b
PUMP	
engine room bilge.	013b
water.	013e
REFRIGERATOR.	108
TRIM TABS(Merc detail).	015a
Merc.	015
Volvo.	015b
WINDLASS	
Maxwell.	016b

ELECTRONICS

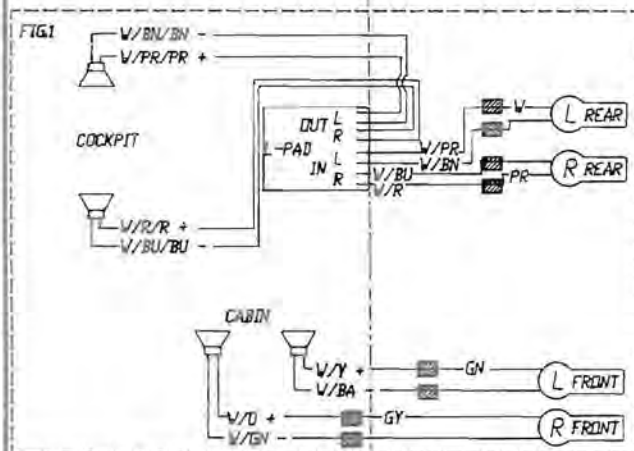
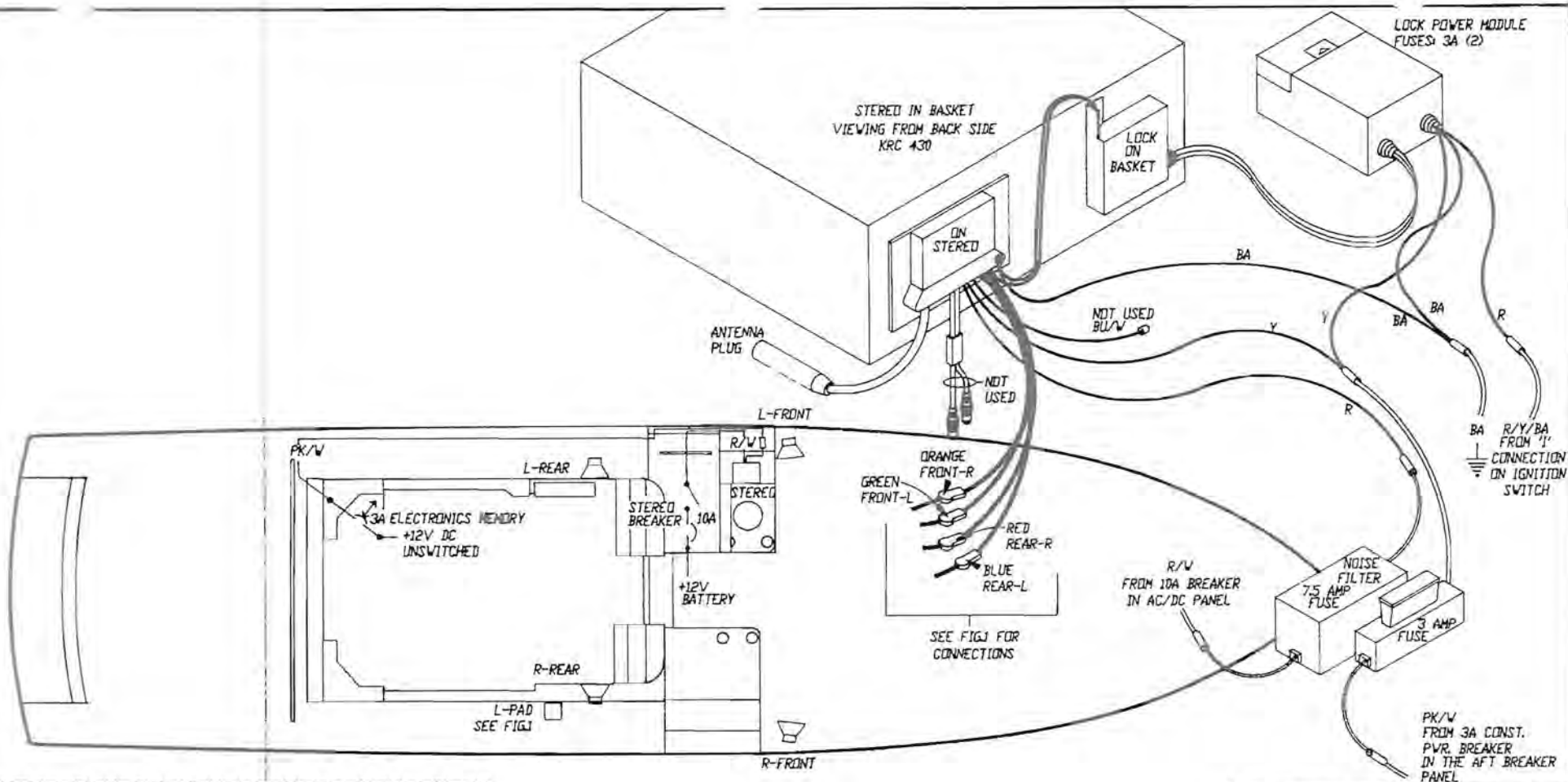
LORAN.	143
STEREO SYSTEM	
stereo.	140
stereo w/amplifiers.	140a
stereo, cd, w/amplifiers.	140b
VHF RADIO.	144

FUEL SYSTEMS

ENGINES	
diesel.	130b
gas.	130a

PLUMBING

DRAINAGE.	131b
WATER LINES.	131



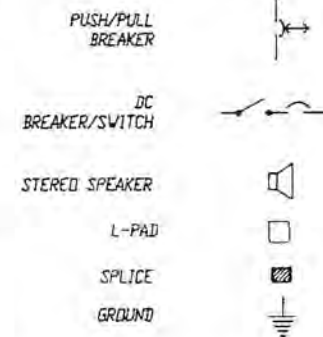
STEREO REMOVAL

1. TURN THE BATTERY SELECTOR SWITCH, FOUND IN THE PORT AFT COCKPIT STORAGE, TO '1', '2' OR 'ALL'.
2. AT THE IGNITION PANEL, TURN THE PORT IGNITION SWITCH TO ITS FIRST POSITION THEN OFF.
3. YOU NOW HAVE 15 SECONDS TO RETURN TO THE CABIN AND REMOVE THE STEREO FROM ITS BASKET.

STEREO OPERATION

1. THE CONSTANT POWER BREAKER IN THE AFT BREAKER PANEL MUST BE PUSHED IN.
2. THE MAIN AND STEREO BREAKERS AT THE AC/DC PANEL MUST BE SWITCHED ON.
3. POWER IS NOW SUPPLIED TO THE STEREO AND CAN BE TURNED ON AT THE UNIT.
4. TO REDUCE THE VOLUME OF THE COCKPIT SPEAKERS ONLY, TURN THE L-PAD CONTROL, AT THE DASH, TOWARD THE '0'.

LEGEND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

REVISIONS

DR CH DATE

FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #

TITLE: F-303
STEREO SYSTEM

DR BY: KKE CH BY:
DATE: 9-10-91 NO.: 303-140

SYSTEM SCHEMATIC
SEE FIG1 FOR
PLACEMENTS.

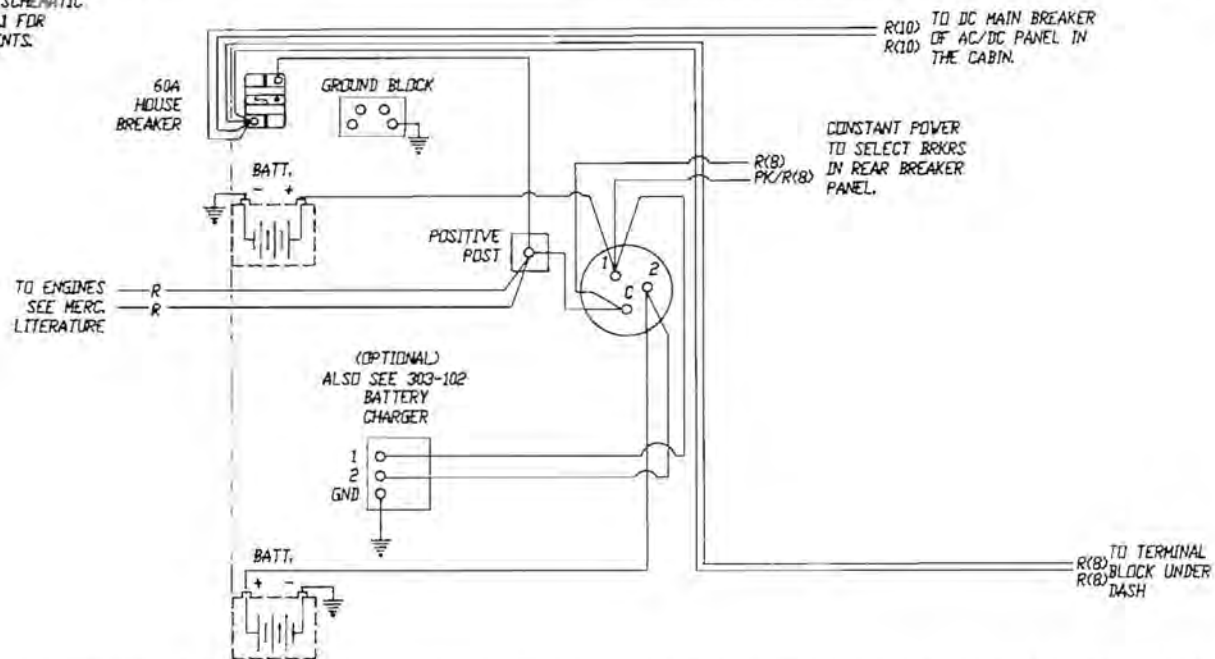


FIG2 BATTERY SELECTOR SWITCH

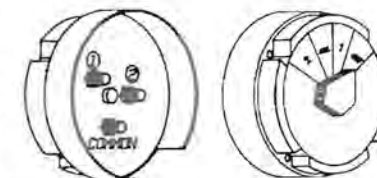
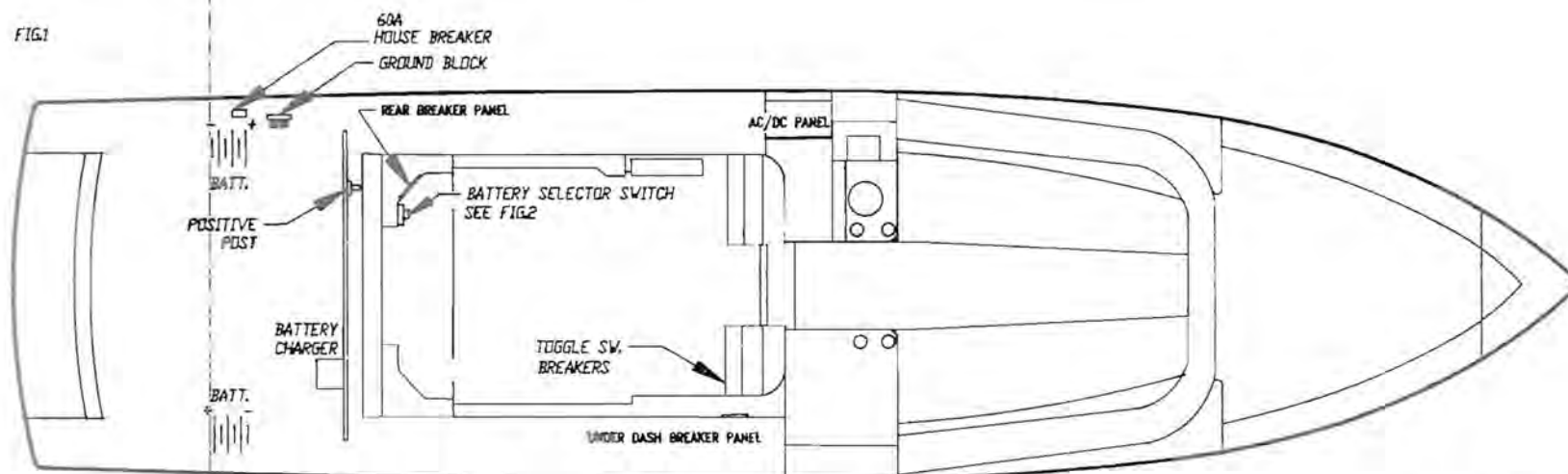


FIG1



SUGGESTED BATTERY SELECTION WHEN
STARTING ENGINES:
BATTERY SELECTOR SWITCH IN THE
"ALL" POSITION.

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR CH DATE

FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

TITLE: F-303
DC SUPPLY SYSTEM

DR BY: KKE CH BY:
DATE: 6-10-92 NO.: 303-001g

METHODS OF CHARGING BY ALTERNATOR

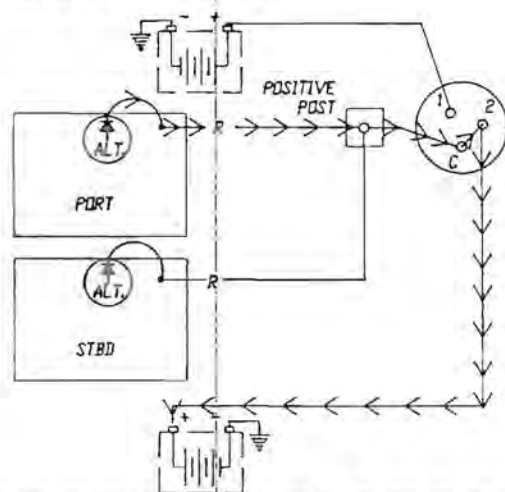
ALSO SEE 303-102 FOR CHARGING WITH INSTALLED BATTERY CHARGER.

SHOWS FLOW OF CHARGE

BATTERY '2' BEING CHARGED

PORT ENGINE RUNNING

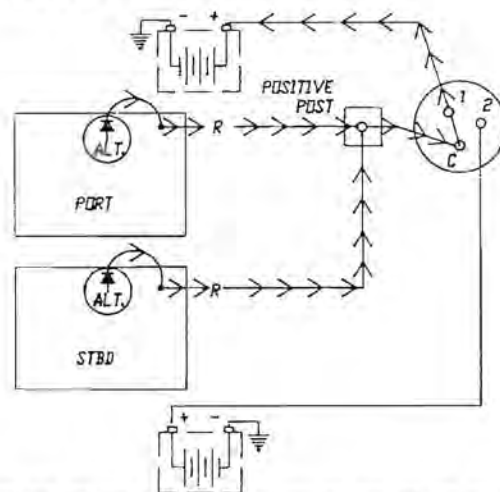
SELECTOR SWITCHED TO BATT '2'



BATTERY '1' BEING CHARGED

PORT AND STBD ENGINES RUNNING

SELECTOR SWITCHED TO BATT '1'

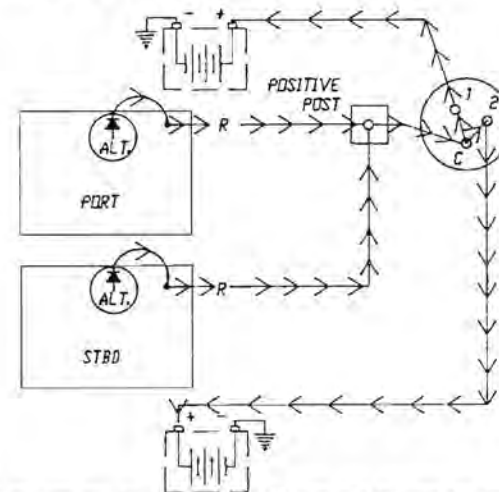


SUGGESTED MEANS OF CHARGING

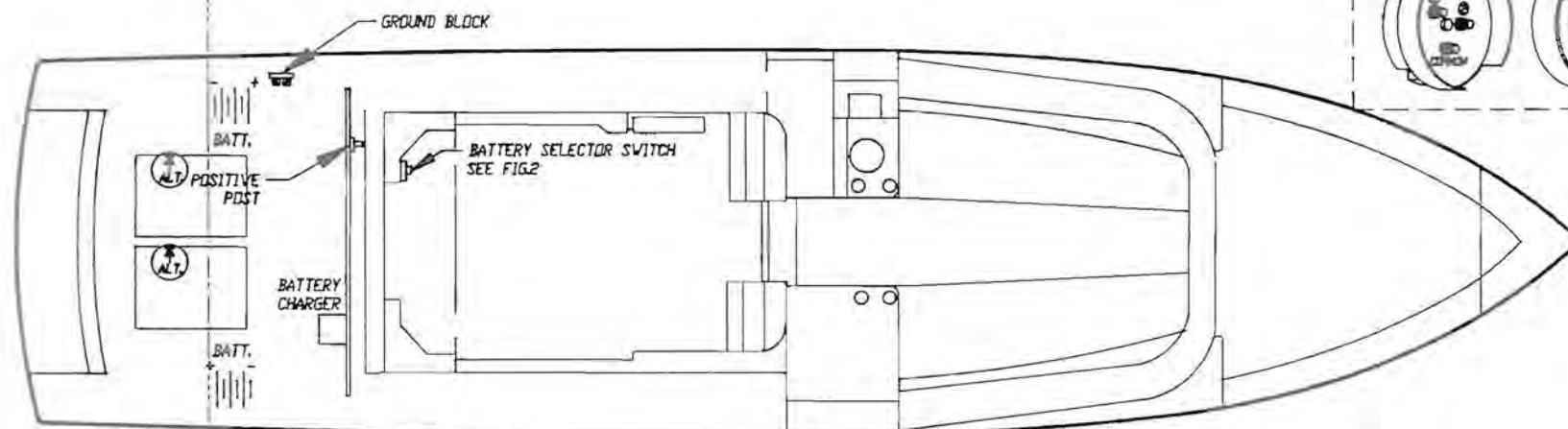
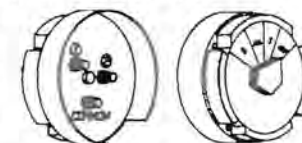
BOTH BATTERIES BEING CHARGED

PORT AND STBD ENGINES RUNNING

SELECTOR SWITCHED TO 'BOTH'



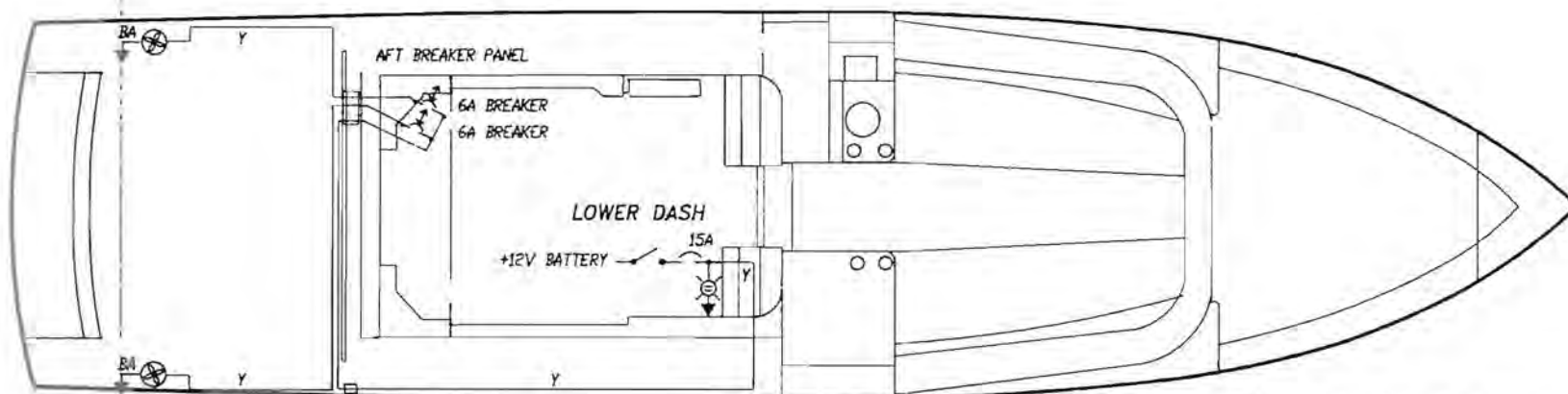
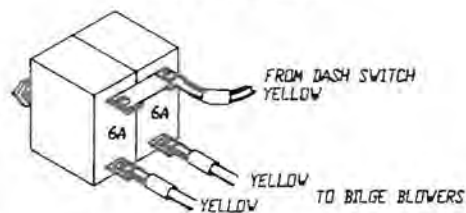
BATTERY SELECTOR SWITCH



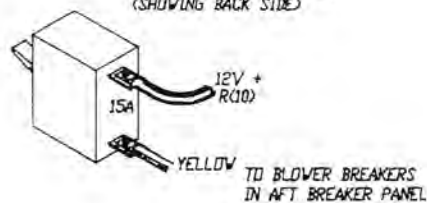
SUGGESTED BATTERY SELECTION WHEN STARTING ENGINES:
BATTERY SELECTOR SWITCH IN THE 'ALL' POSITION.

THUNDERBIRD PRODUCTS	4						FROM HIN #	TO HIN #	TITLE: F-303
P.O. BOX 501	3						FROM HIN #	TO HIN #	CHARGING BATTERIES
DECATUR, IN 46733	2						FROM HIN #	TO HIN #	WITH ALTERNATORS
(219) 724-9111	1						FROM HIN #	TO HIN #	DR BY: KKE CH BY:
		REVISIONS	DR	CH	DATE		FROM HIN #	TO HIN #	DATE: 06-10-92 NO: 303-001 b

AFT BREAKER PANEL
(SHOWING BACK SIDE)



ACCESSORY SWITCH PANEL
(SHOWING BACK SIDE)



WARNING:
GASOLINE VAPORS CAN EXPLODE
BEFORE STARTING ENGINE!
-CHECK ENGINE COMPARTMENT
FOR GASOLINE VAPORS.
-OPERATE BLOWERS FOR 4 MINUTES.
RUN BLOWER BELOW CRUISING SPEED.

NOTE:
TO OPERATE BLOWERS:
1. TURN BATTERY SELECTOR
SWITCH TO '1', '2' or 'ALL'.
2. THE SWITCH AT THE DASH
IS NOW SUPPLIED WITH +12V
AND WHEN SWITCHED ON WILL
RUN BOTH BLOWERS.

LEGEND

PUSH/PULL
BREAKER



TOGGLE SWITCH



BLOWER



GROUND



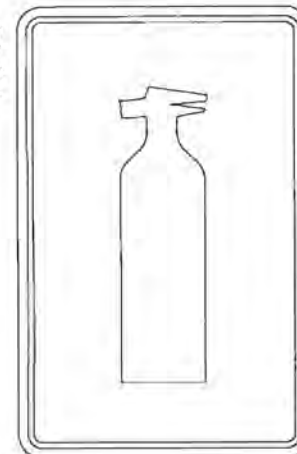
PLUG



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

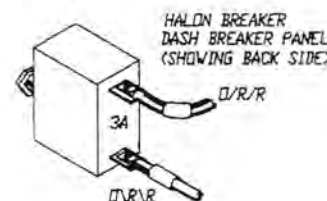
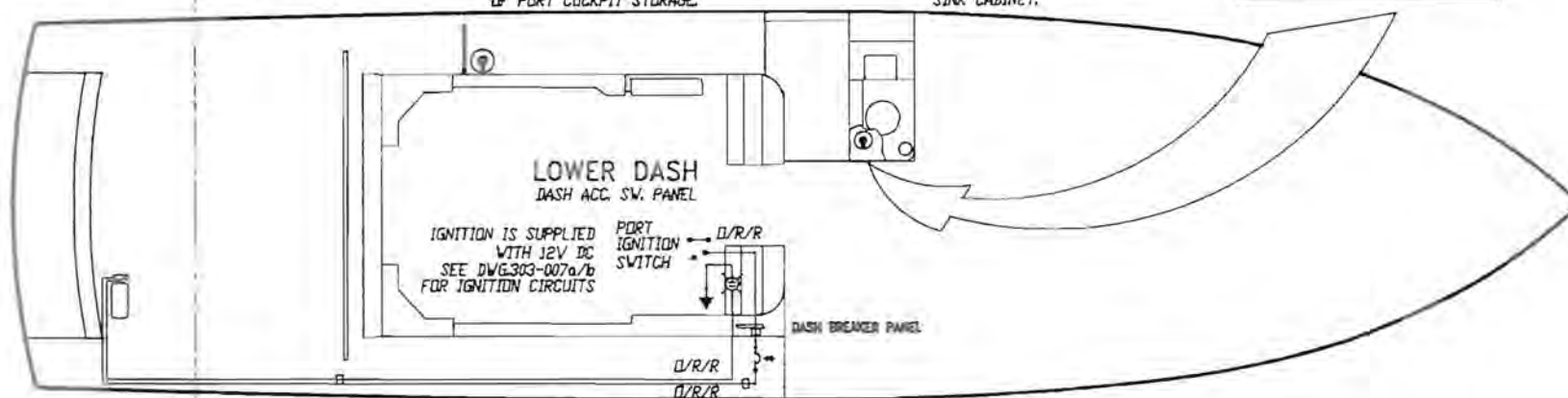
REV	DESCRIPTION	DR	CH	DATE	FROM HIN #	TO HIN #	TITLE: F-303 ENGINE COMP. BLOWERS (LOWER DASH/BILGE)
4					FROM HIN #	TO HIN #	DR BY: KKE CH BY:
3					FROM HIN #	TO HIN #	DATE: 6-10-92 NO.: 303-002
2					FROM HIN #	TO HIN #	
1					FROM HIN #	TO HIN #	
0					FROM HIN #	TO HIN #	

LABEL REPRESENTS
THE PRESENCE OF
AN EXTINGUISHER
WITHIN



MANUAL OPERATION
FOUND ON AFT WALL
OF PORT COCKPIT STORAGE

MANUAL OPERATION
FOUND UNDER GALLEY
SINK CABINET.



THE HALON INDICATOR LIGHT
IS POWERED BY THE STARTING
BATTERY ONLY WHEN THE
IGNITION SWITCH IS IN THE
ON POSITION. THE LIGHT INDICATES
TO THE OPERATOR THERE IS
SUFFICIENT PRESSURIZATION TO
EXPEL THE AGENT OF THE ENGINE
COMPARTMENT EXTINGUISHER. THE
UNIT DOES NOT
REQUIRE 12 VOLTS TO EXPEL
THE AGENT.

LEGEND

HALON FIRE EXTINGUISHER	
PUSH/PULL BREAKER	
PLUG	
HALON LIGHT	
IGNITION SWITCH	
GROUND	

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

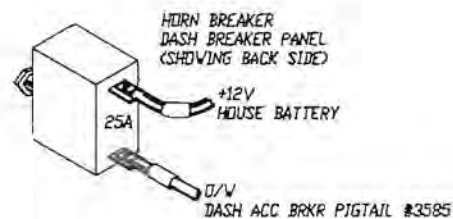
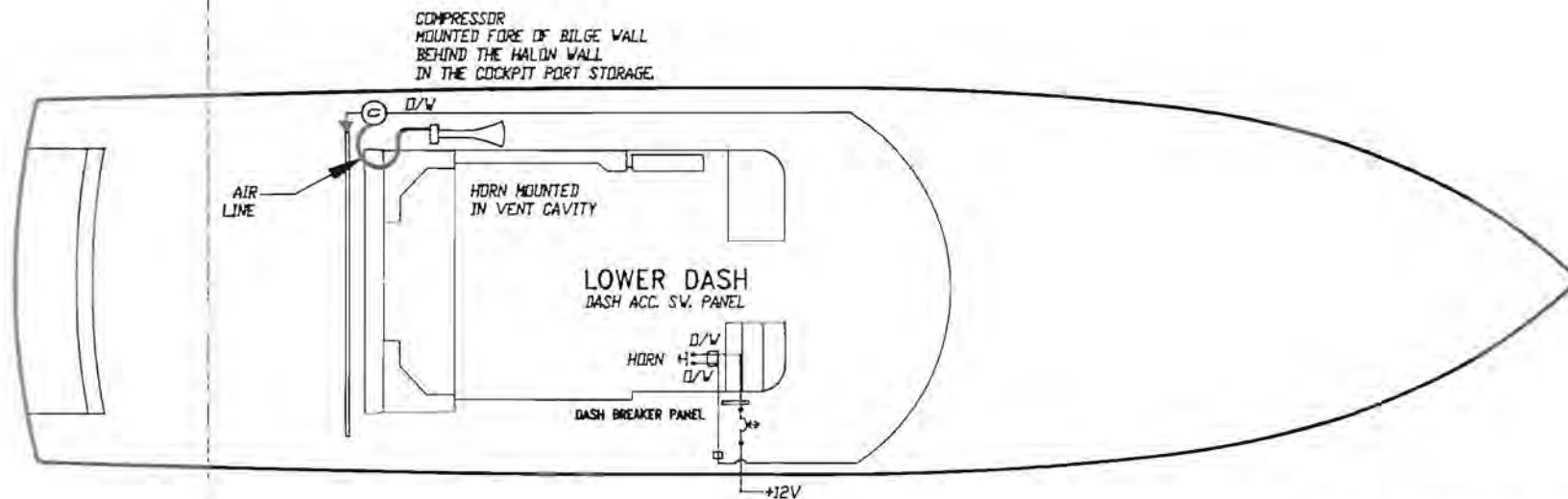
REVISIONS

DR CH DATE

FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #

TITLE: F-303
HALON INDICATOR LIGHT
HALON PLACEMENTS)

DR BY: KKE	CH BY:
DATE: 6-10-92	NO. 303-005



LEGEND

BREAKER	
PLUG	
N.O. PUSH BUTTON SWITCH	
AIR COMPRESSOR	
GROUND	

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

REVISIONS

DR

CH

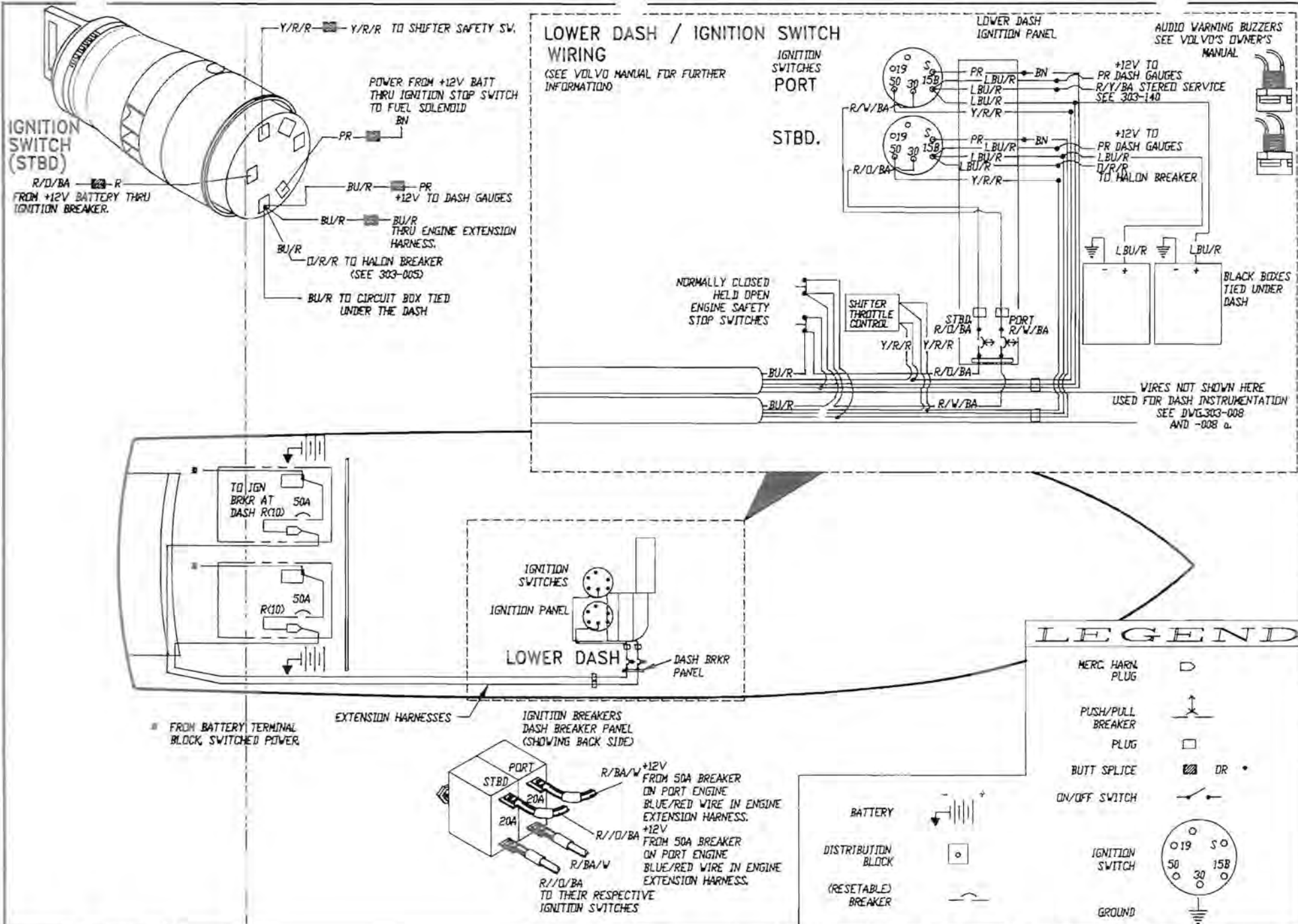
DATE

FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

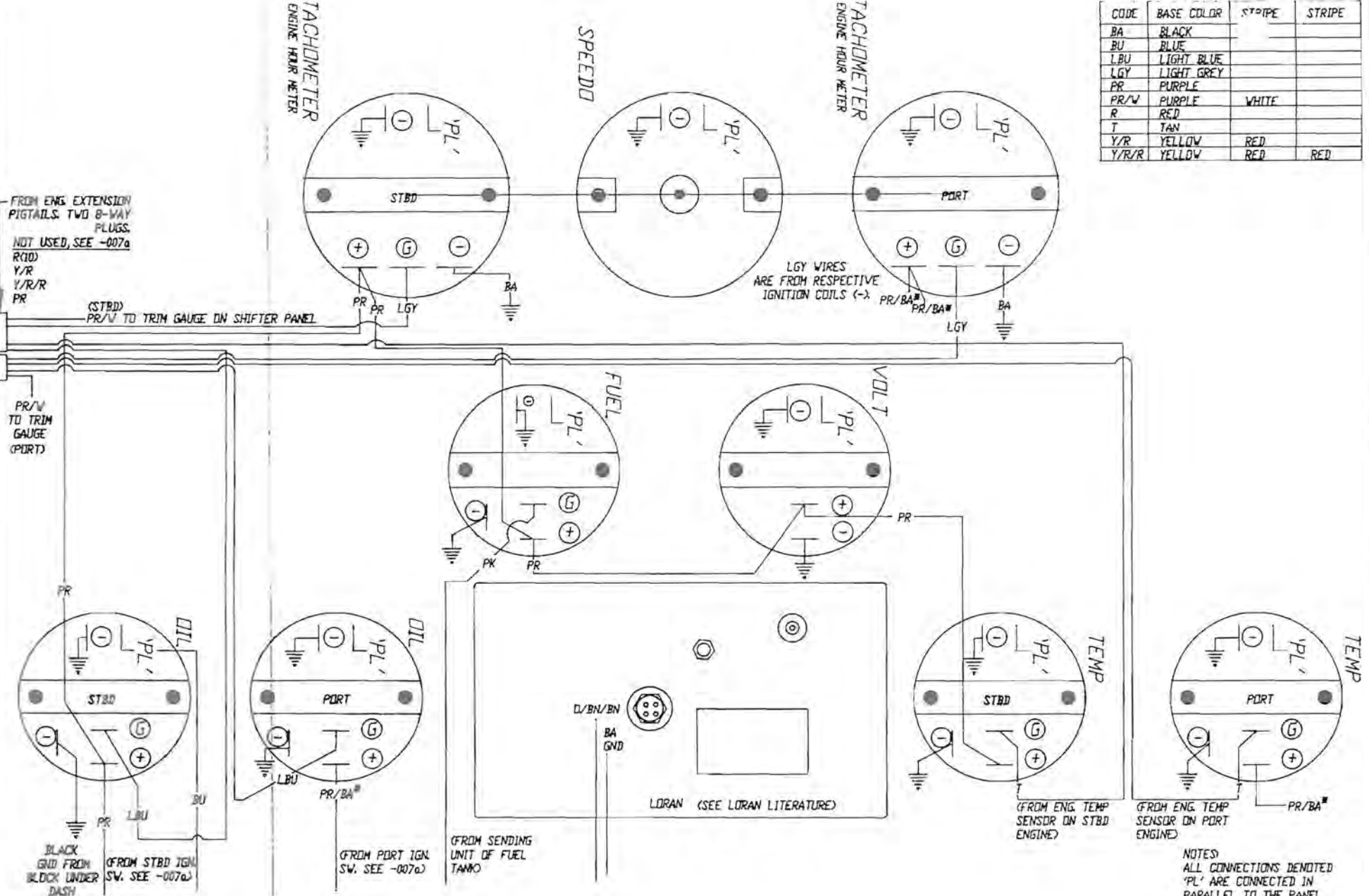
TITLE: F-303
HORN COMPRESSOR
(AFT OF PORT STORAGE)

DR BY: KKE CH BY:
DATE: 6-19-82 NO.: 303-006



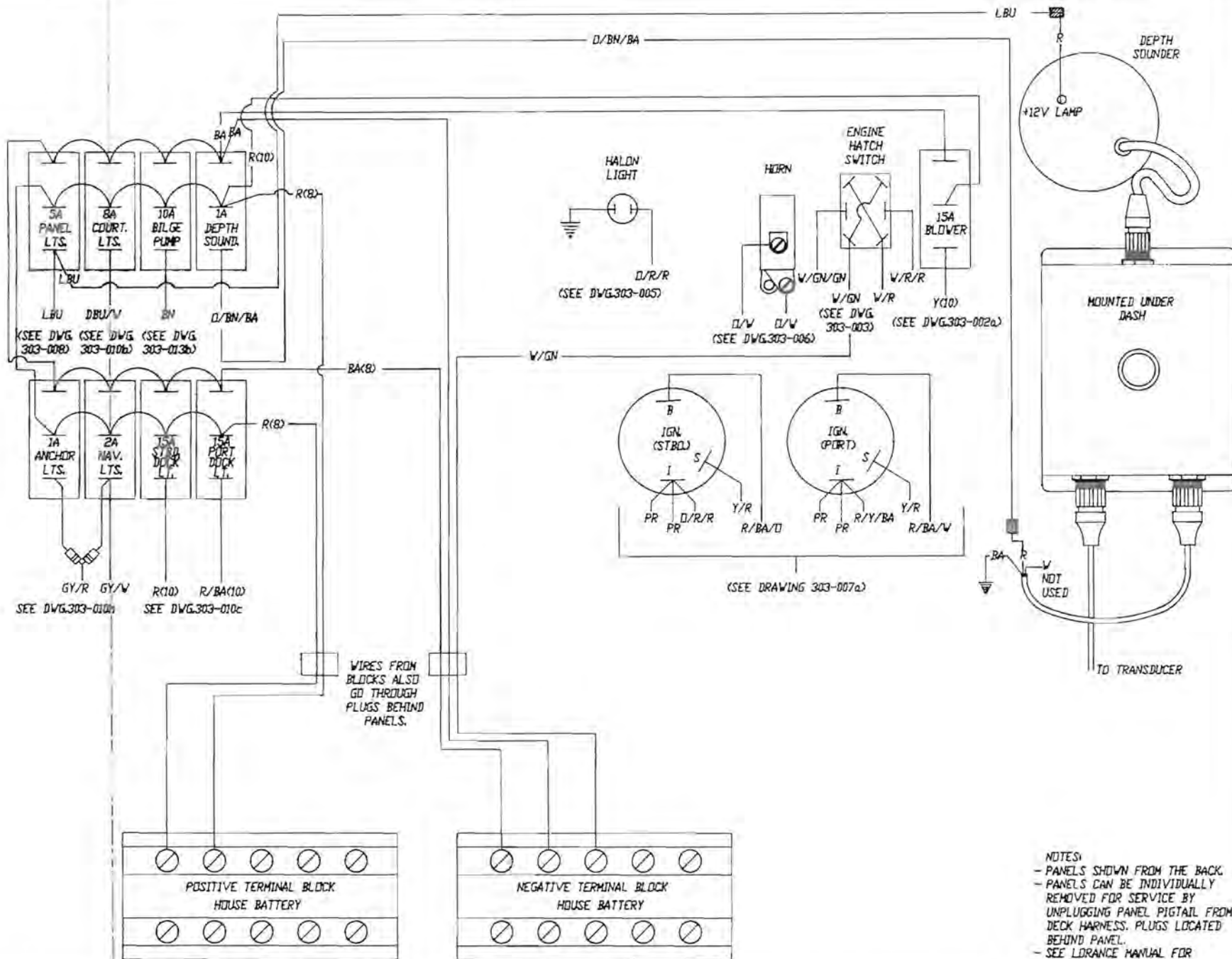
THUNDERBIRD PRODUCTS	4					FROM HIN #	TO HIN #	TITLE: F-303
P.O. BOX 501	3					FROM HIN #	TO HIN #	IGNITION DIESEL ENGINE
DECATUR, IN 46733	2					FROM HIN #	TO HIN #	(DASH AREA)
(219) 724-9111	1					FROM HIN #	TO HIN #	DR BY: KKE CH BY:
		REVISIONS	DR	CH	DATE	FROM HIN #	TO HIN #	DATE: 6-10-92 NO.: 303-007 b

CODE	BASE COLOR	STRIPE	STRIPE
BA	BLACK		
BU	BLUE		
LB	LIGHT BLUE		
LG	LIGHT GREY		
PR	PURPLE		
PR/W	PURPLE	WHITE	
R	RED		
T	TAN		
Y/R	YELLOW	RED	
Y/R/R	YELLOW	RED	RED



NOTES:
ALL CONNECTIONS DENOTED
'PL' ARE CONNECTED IN
PARALLEL TO THE PANEL
LIGHT SWITCH ON THE DASH
ACCESSORY PANEL.
EACH SET OF GAUGES IS
POWERED BY ITS CORRESPONDING
IGNITION SWITCH.

THUNDERBIRD PRODUCTS P.O. BOX 501 DECATUR, IN 46733 (219) 724-9111	4						FROM HIN #	TO HIN #	TITLE: F-303 (UPPER DASH) DASH INSTRUMENTS ALSO SEE 336-007AND 008a DR BY: KKE CH BY: DATE: 7-22-91 NO.: 303-008			
	3						FROM HIN #	TO HIN #				
	2						FROM HIN #	TO HIN #				
	1						FROM HIN #	TO HIN #				
	#						FROM HIN #	TO HIN #				
							REVISIONS	DR	CH	DATE		



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

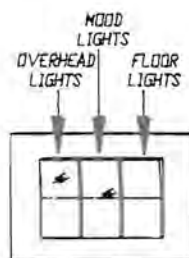
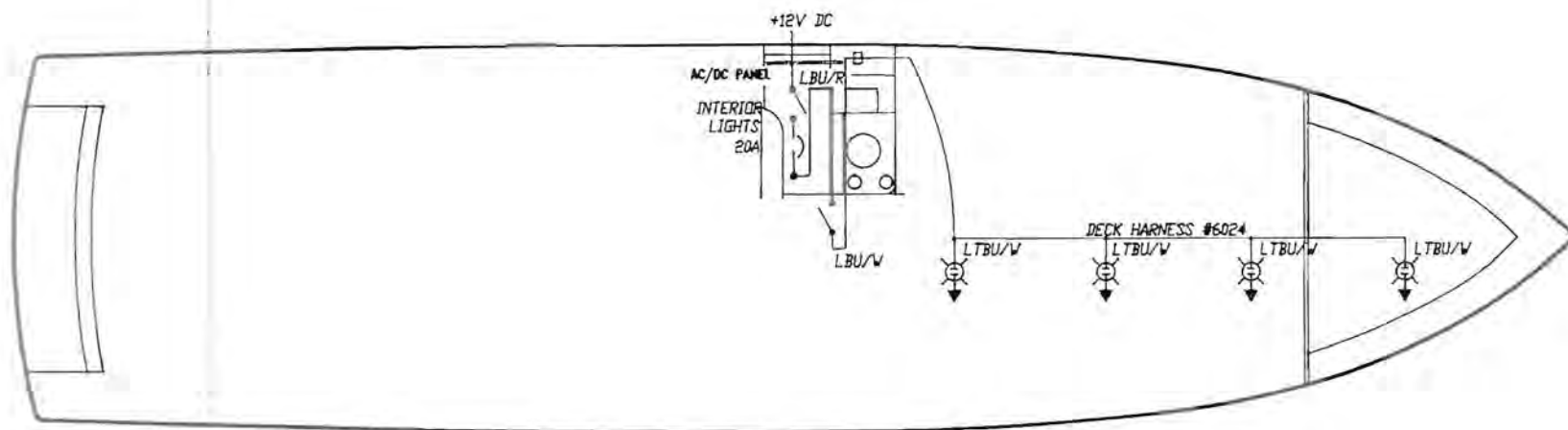
4
3
2
1

REVISIONS

DR CH DATE

FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #

TITLE: F-303 SRJ
DASH ACC SWITCH PANEL
(LOWER DASH)
DR BY: KKE CH BY:
DATE: 6-10-92 NO.: 303-008 a



- NOTES:
 CABIN LIGHTS ARE POWERED BY THE 12V BATTERY.
 TO OPERATE:
 1. THE BATTERY SELECTOR SWITCH FOUND IN THE AFT SEAT PAN, MUST BE TURNED TO ON.
 2. THE DC MAIN BREAKER AT THE AC/DC PANEL MUST BE SWITCHED TO ON.
 3. THE CABIN LIGHT BREAKER AT THE AC/DC PANEL MUST BE SWITCHED TO ON.
 4. THE ENTRYWAY'S FIRST SWITCH IS NOW SUPPLIED WITH POWER TO TURN LIGHTS ON.

LEGEND

- LIGHT 
- SWITCH 
- BREAKER SWITCH 
- PLUG 
- GROUND 

THUNDERBIRD PRODUCTS
 P.O. BOX 501
 DECATUR, IN 46733
 (219) 724-9111

4
 3
 2
 1

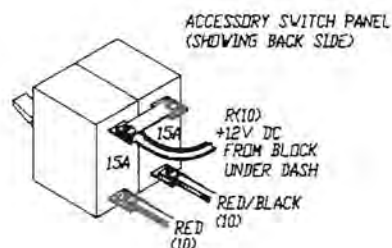
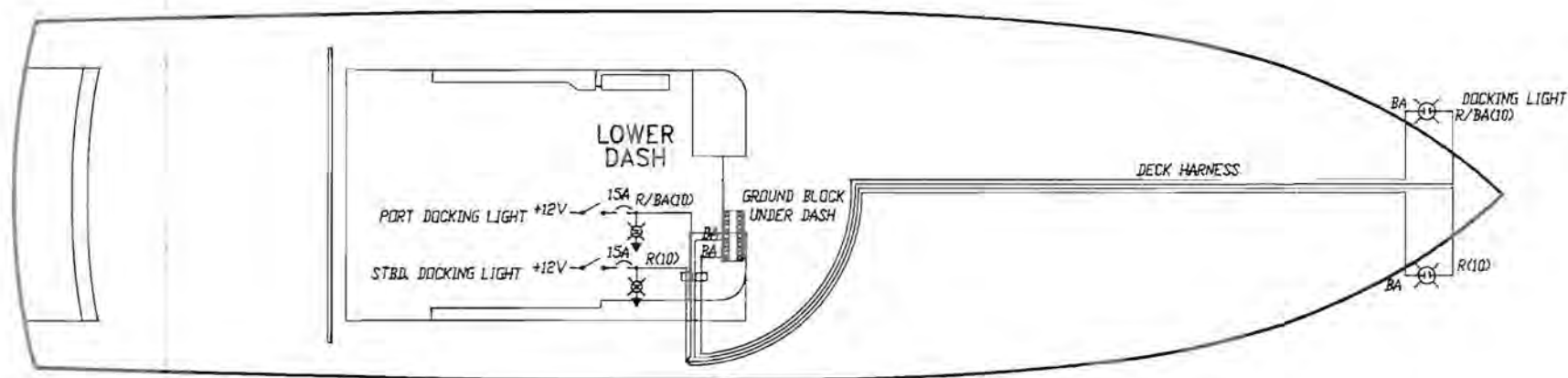
REVISIONS

DR CH DATE

FROM HIN # * TO HIN # *
 FROM HIN # * TO HIN # *
 FROM HIN # * TO HIN # *
 FROM HIN # * TO HIN # *
 FROM HIN # * TO HIN # *

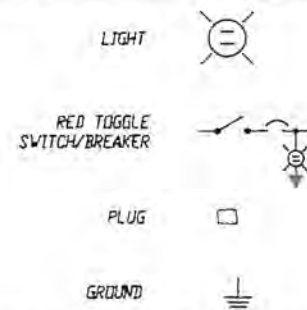
TITLE: F-303
 CABIN LIGHTS

DR BY: KKE CH BY:
 DATE: 6-10-92 NO. 303-010



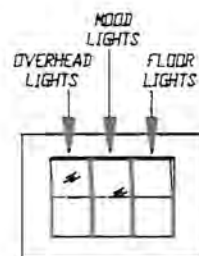
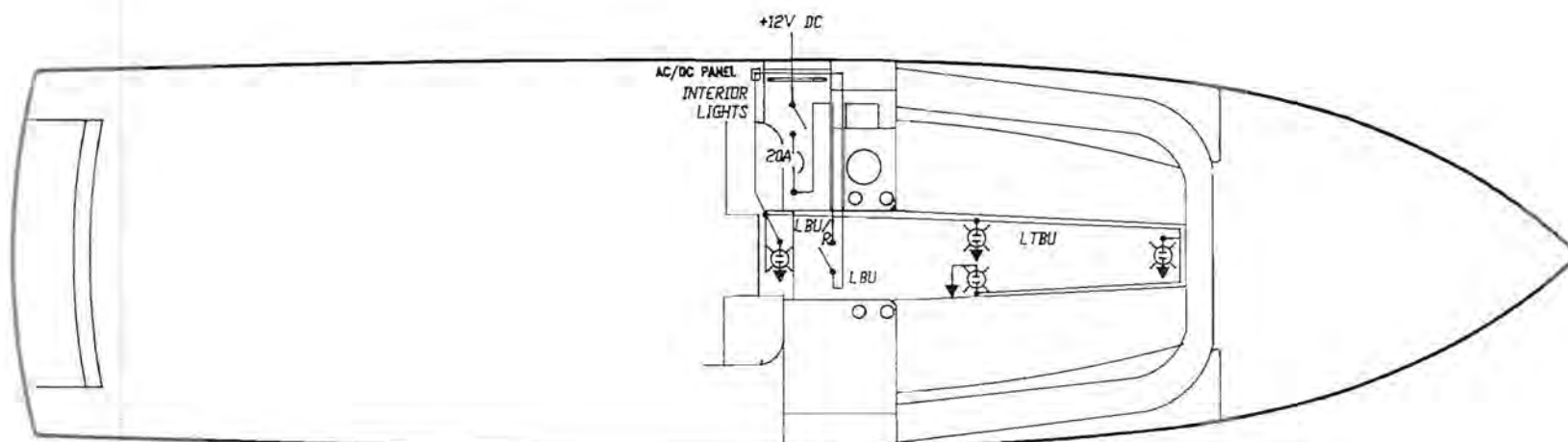
NOTES:
DOCKING LIGHTS ARE POWERED BY A 12V DC BATTERY.
TO OPERATE:
1. THE 12V BATTERY SELECTOR SWITCH FOUND IN THE AFT SEAT PAN, MUST BE TURNED TO ON.
2. THE RED TOGGLE SWITCH/BREAKERS AT THE DASH LABELED PORT AND STBD DOCKING LIGHT ARE NOW SUPPLIED WITH THE 12V NEEDED TO TURN ON THE BOW DOCKING LIGHTS.

LEGEND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

REV	DESCRIPTION	DR	CH	DATE	FROM HIN #	TO HIN #	TITLE
4					FROM HIN #	TO HIN #	TITLE: F-303
3					FROM HIN #	TO HIN #	DOCKING LIGHTS
2					FROM HIN #	TO HIN #	DASH / BOW
1					FROM HIN #	TO HIN #	DR BY: KKE CH BY:
	REVISIONS				FROM HIN #	TO HIN #	DATE: 6-11-92 NO.: 303-010 C



NOTES

FLOOR LIGHTS ARE POWERED BY A 12V DC BATTERY.

TO OPERATE:

1. THE BATTERY SELECTOR SWITCH FOUND IN THE AFT SEAT PAN MUST BE TURNED TO ON.
2. THE DC MAIN BREAKER AT THE AC/DC PANEL MUST BE SWITCHED TO ON.
3. THE INTERIOR LIGHT BREAKER AT THE AC/DC PANEL MUST BE SWITCHED TO ON.
4. THE ENTRYWAY'S THIRD SWITCH IS NOW SUPPLIED WITH POWER TO TURN LIGHTS ON.

LEGEND

LIGHT



SWITCH



BREAKER SWITCH



PLUG



GROUND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

REVISIONS

DR

CH

DATE

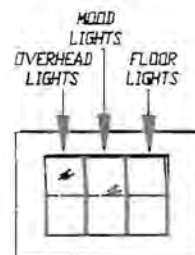
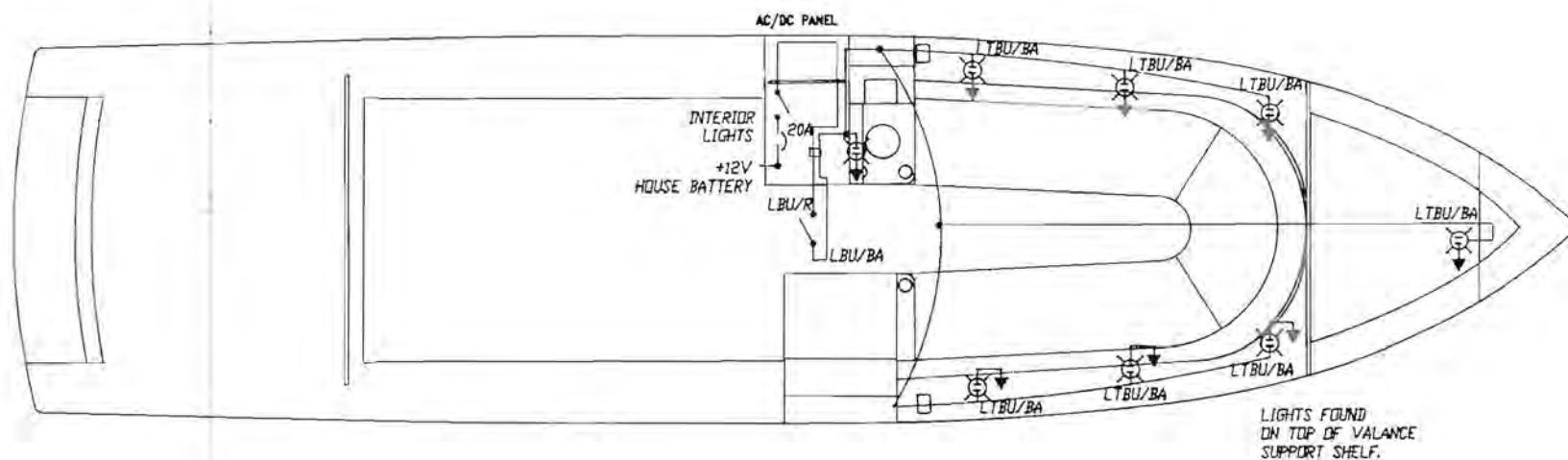
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *

TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *

TITLE: F-303
FLOOR LIGHTS

DR BY: KKE
DATE: 6-11-92

CH BY:
NO.: 303-010 e



NOTES:
UPPER AND LOWER MOOD LIGHTS
ARE POWERED BY THE HOUSE BATTERY.
TO OPERATE:
1. THE BATTERY SELECTOR SWITCH
FOUND IN THE AFT SEAT PAN,
MUST BE TURNED TO '1', '2', OR 'ALL'.
2. THE DC MAIN 1 BREAKER AT THE
AC/DC PANEL MUST BE SWITCHED TO ON.
3. THE CABIN LIGHT BREAKER AT THE
AC/DC PANEL MUST BE SWITCHED TO ON.
4. THE ENTRYWAY'S SECOND
SWITCH IS NOW SUPPLIED WITH
POWER TO TURN LIGHTS ON.

LEGEND

LIGHT



SWITCH



BREAKER
SWITCH



PLUG



GROUND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

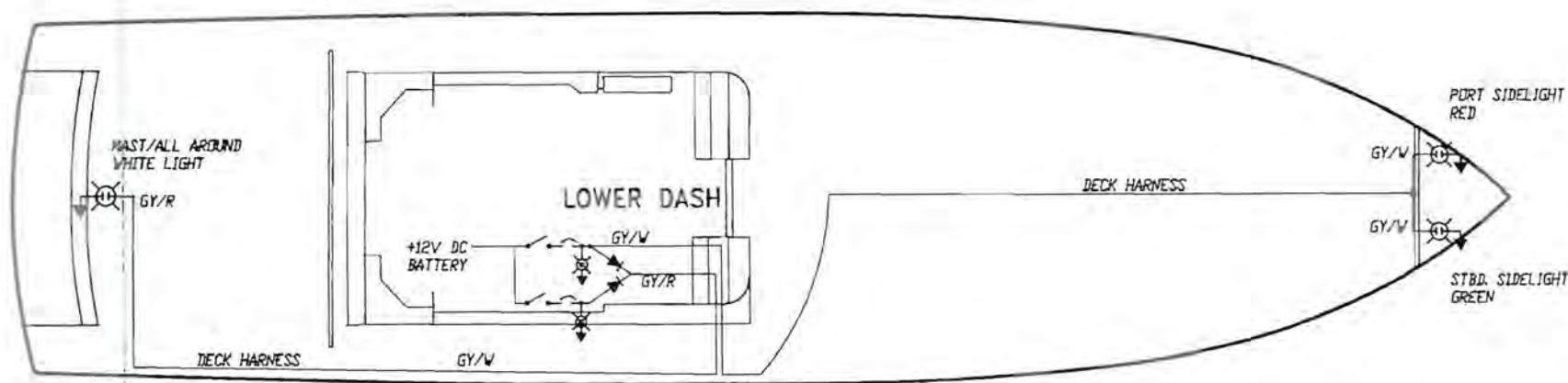
REVISIONS

DR CH DATE

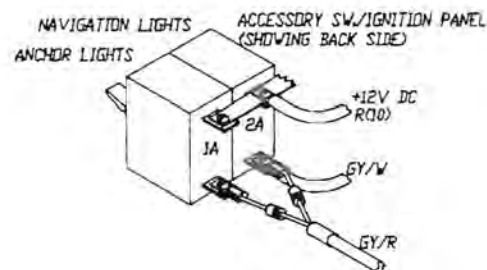
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *

TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *

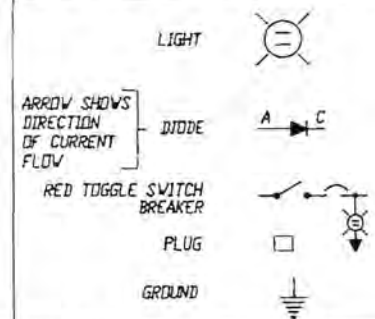
TITLE: F-303
VALANCE (MOOD) LIGHTS
DR BY: KKE CH BY:
DATE: 6-11-92 NO.: 303-010



NOTES:
THE BATTERY SELECTOR SWITCH
MUST BE TURNED ON TO OPERATE
ANCHOR AND NAVIGATION LIGHTS.



LEGEND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-8111

4
3
2
1

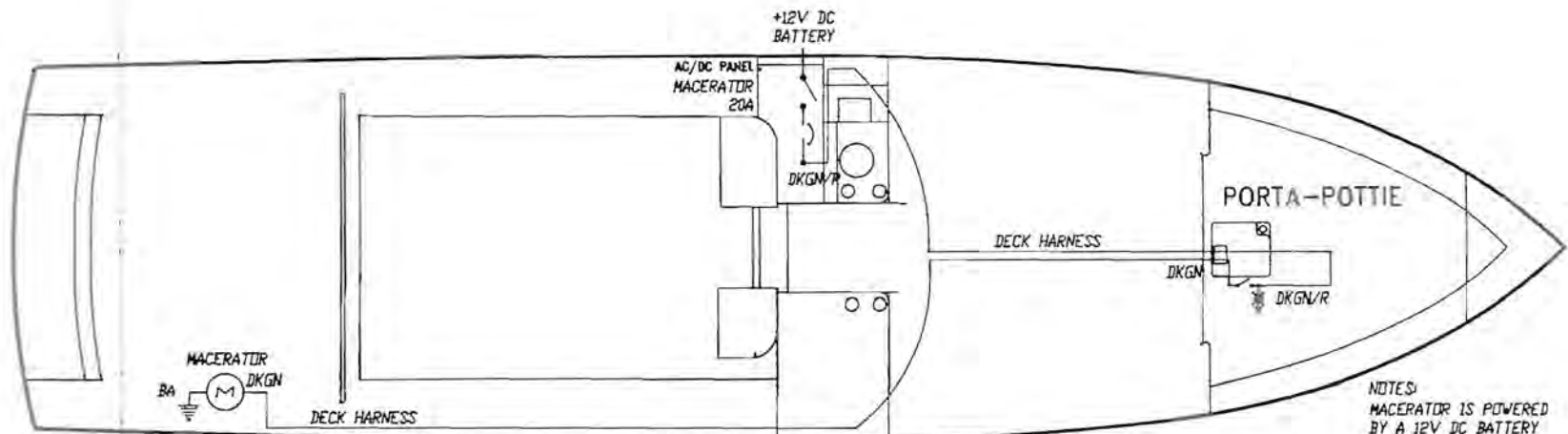
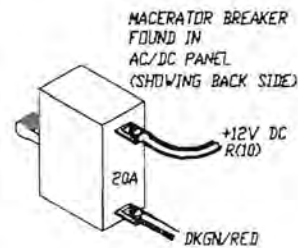
REVISIONS

DR CH DATE

FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *

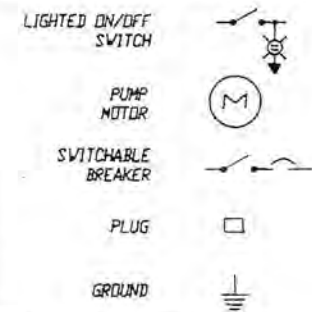
TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *

TITLE: F-303 SR1
NAVIGATION LIGHTS
DR BY: KKE CH BY:
DATE: 6-11-92 NO.: 303-010h



- NOTES:
MACERATOR IS POWERED
BY A 12V DC BATTERY
TO OPERATE:
1. TURN BATTERY SELECTOR SWITCH
IN AFT SEAT STORAGE, TO ON.
2. SWITCH DC MAIN BREAKER
AT AC/DC PANEL ON.
3. SWITCH MACERATOR BREAKER
AT AC/DC PANEL ON.
4. MACERATOR CAN NOW BE
ACTIVATED BY SWITCH IN HEAD.

LEGEND



CODE	BASE COLOR	STRIP
BA	BLACK	
BN/R	BROWN	RED
DKGW/O	DARK-GREEN	ORANGE
DKGW/R	DARK-GREEN	RED
R	RED	

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

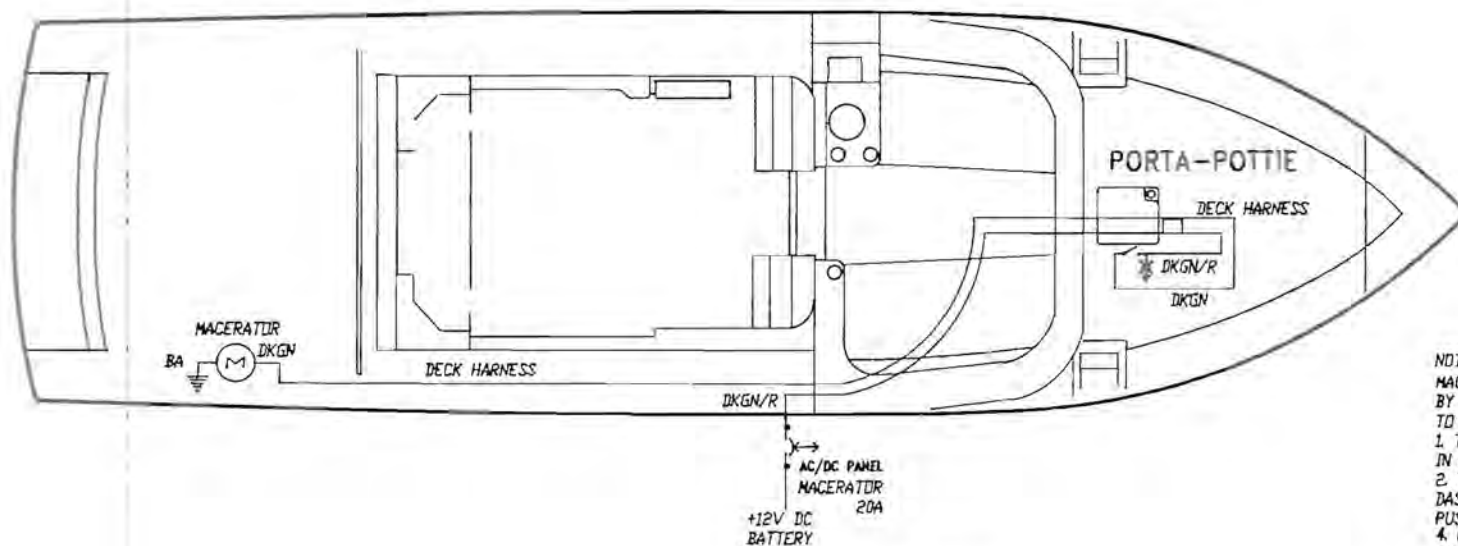
4
3
2
1

REVISIONS

DR CH DATE

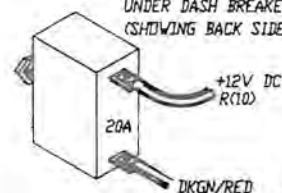
FROM HIN # * TO HIN # *
FROM HIN # * TO HIN # *
FROM HIN # * TO HIN # *
FROM HIN # * TO HIN # *
FROM HIN # * TO HIN # *

TITLE: F-303
MACERATOR
(UNDER VANITY / BILGE)
DR BY: KKE CH BY:
DATE: 8-1-91 NO.: 303-011



NOTES:
 MACERATOR IS POWERED
 BY A 12V DC BATTERY
 TO OPERATE:
 1. TURN BATTERY SELECTOR SWITCH
 IN AFT SEAT STORAGE, TO DN.
 2. THE MACERATOR BREAKER IN THE
 DASH BREAKER PANEL MUST BE
 PUSHED IN.
 4. MACERATOR CAN NOW BE
 ACTIVATED BY SWITCH IN HEAD.

MACERATOR BREAKER
 FOUND IN
 UNDER DASH BREAKER PANEL
 (SHOWING BACK SIDE)



CODE	BASE COLOR	STRIPE
BA	BLACK	
BN/R	BROWN	RED
DKGN/D	DARK-GREEN	ORANGE
DKGN/R	DARK-GREEN	RED
R	RED	

LEGEND

LIGHTED ON/OFF
 SWITCH



PUMP
 MOTOR



PUSH/PULL
 BREAKER



PLUG



GROUND



THUNDERBIRD PRODUCTS
 P.O. BOX 501
 DECATUR, IN 46733
 (219) 724-9111

4
 3
 2
 1

REVISIONS

DR

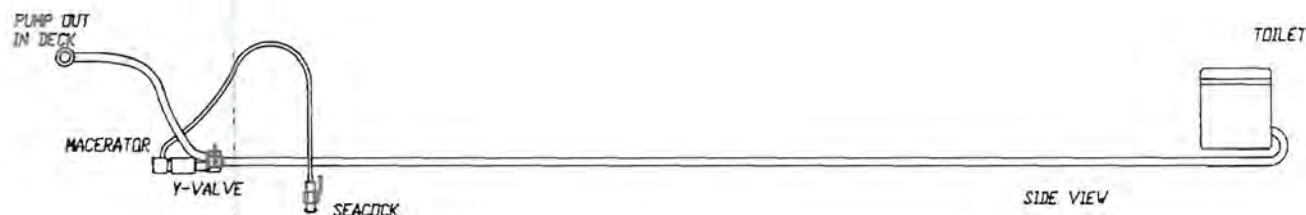
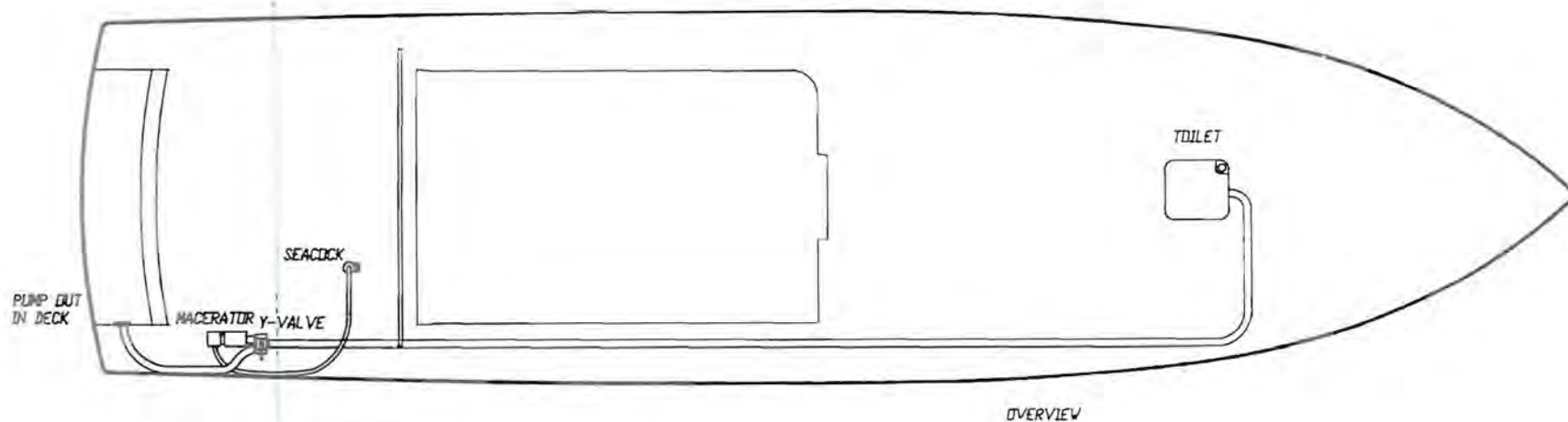
CH

DATE

FROM HIN # *
 FROM HIN # *
 FROM HIN # *
 FROM HIN # *
 FROM HIN # *

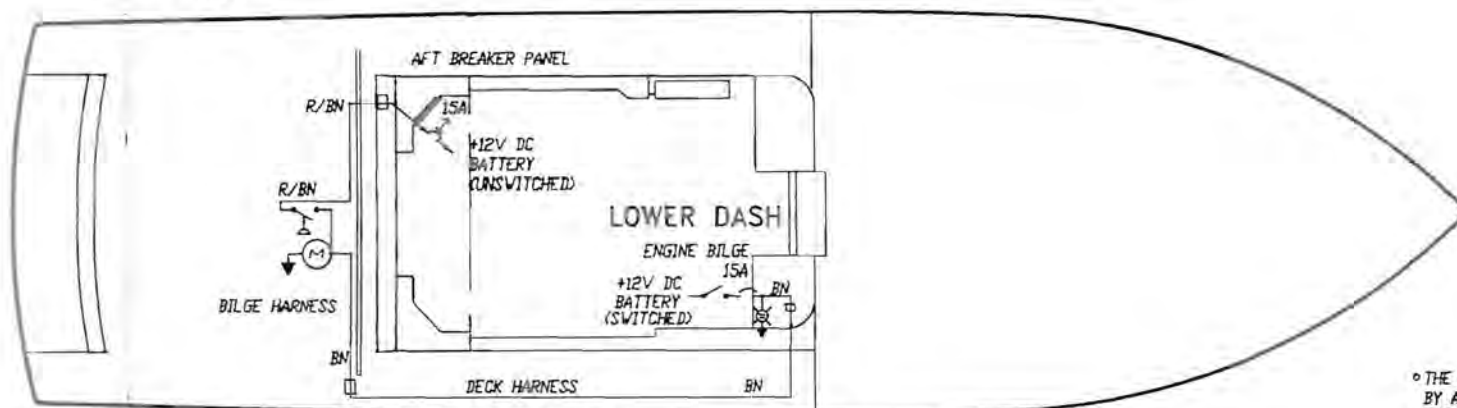
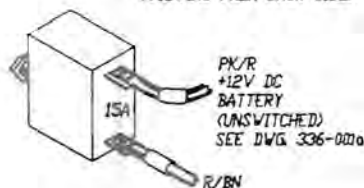
TO HIN # *
 TO HIN # *
 TO HIN # *
 TO HIN # *
 TO HIN # *

TITLE: F-303
 MACERATOR
 (UNDER VANITY / BILGE)
 DR BY: KKE CH BY:
 DATE: 8-1-91 NO.: 303-011



THUNDERBIRD PRODUCTS P.O. BOX 501 DECATUR, IN 46733 (219) 724-9111	4					FROM HIN #	TO HIN #	TITLE: F-303 MACERATOR HOOK-UP (PLUMBING)
	3					FROM HIN #	TO HIN #	
	2					FROM HIN #	TO HIN #	
	1					FROM HIN #	TO HIN #	
	#	REVISIONS	DR	CH	DATE	FROM HIN #	TO HIN #	DR BY: KKE CH BY: DATE: 6-11-92 NO.: 303-011 b

ENGINE BILGE BREAKER
AFT BREAKER PANEL
(VIEWING FROM BACK SIDE)



- THE ENGINE BILGE IS POWERED BY A 12V DC BATTERY.
- THE BATTERY SELECTOR SWITCH MUST BE IN THE ON POSITION FOR MANUAL OPERATION.
- TO REMOVE CONSTANT PWR. TO THE ENGINE BILGE FLOAT SWITCH, THE ENGINE BILGE BREAKER IN AFT BRKR. PANEL MUST BE PULLED OUT.
- SEE -131 b FOR DRAIN LINES.

LEGEND

VACUUM PUMP
MOTOR



FLOAT
SWITCH



PUSH/PULL
BREAKER



PLUG



GROUND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

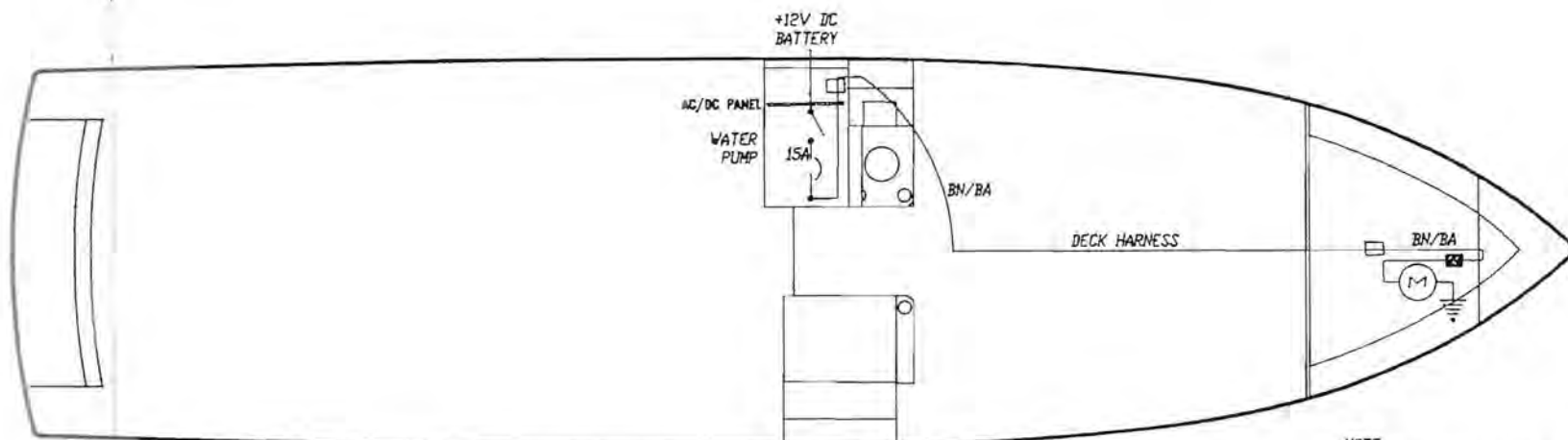
REVISIONS

DR CH DATE

FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *

TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *

TITLE: F-303
ENGINE BILGE PUMP
(AFT BILGE / DASH)
DR BY: KKE CH BY:
DATE: 6-11-92 NO.: 303-013 b



NOTE:
 THE WATER PUMP POWER IS
 SUPPLIED BY A 12V DC BATTERY
 (SWITCHED)
 TO OPERATE:
 1. THE BATTERY SELECTOR SWITCH
 MUST BE SWITCHED 'ON'.
 2. THE DC MAIN BREAKER ON THE AC/DC
 PANEL MUST BE IN THE ON
 POSITION.
 3. THE WATER PUMP SWITCH
 AT THE AC/DC PANEL CAN
 NOW BE SWITCHED ON TO
 ACTIVATE PUMP.

LEGEND

BREAKER SWITCH



PUMP
 MOTOR



SPLICE



PLUG



THUNDERBIRD PRODUCTS
 P.O. BOX 501
 DECATUR, IN 46733
 (219) 724-9111

4
 3
 2
 1
 #

REVISIONS

DR

CH

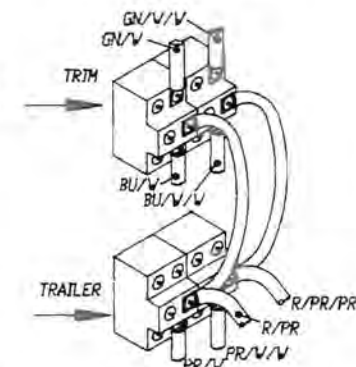
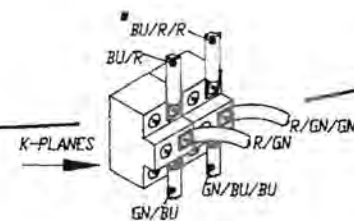
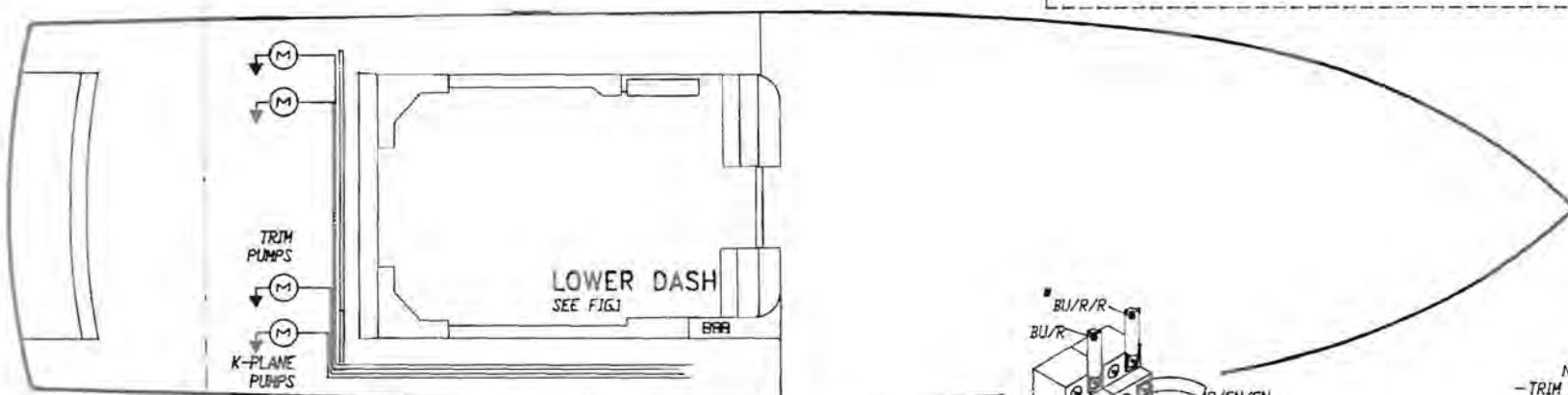
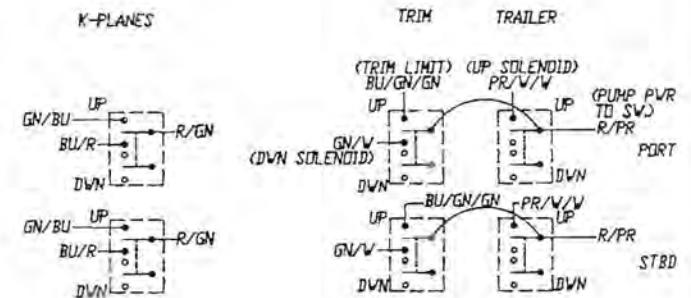
DATE

FROM HIN #
 FROM HIN #
 FROM HIN #
 FROM HIN #
 FROM HIN #

TO HIN #
 TO HIN #
 TO HIN #
 TO HIN #
 TO HIN #

TITLE: F-303
 WATER PUMP WIRING
 (AC/DC PANEL / V-BERTHD)
 DR BY: KKE CH BY:
 DATE: 6-11-92 NO.: 303-013 e

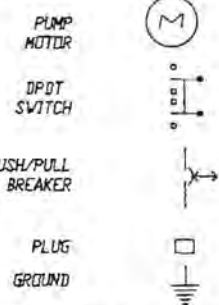
FIG. 1



VIEWING FROM BACK SIDE
SEE FIG. 1 FOR SCHEMATIC
DETAIL.

- NOTES:
- TRIM AND K-PLANE PUMPS ARE POWERED BY A 12V DC BATTERY.
 - SEE KITEKHAERF OWNERS MANUAL FOR K-PLANE WIRING.
 - SEE DWG. 303-015a FOR TRIM PUMP WIRING.

LEGEND



CODE	BASE COLOR	STRIPE
BA	BLACK	
BU/R	BLUE	RED
BU/V	BLUE	WHITE
GN/BU	GREEN	BLUE
GN/V	GREEN	WHITE
PR/V	PURPLE	WHITE
R	RED	
R/GN	RED	GREEN
R/PR	RED	PURPLE

BU/R/R

STRIPE 2

STRIPE 1

BASE COLOR

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

REVISIONS

DR CH DATE

FROM HIN # *
FROM HIN # *
FROM HIN # *
FROM HIN # *

TO HIN # *
TO HIN # *
TO HIN # *
TO HIN # *

TITLE: F-303
TRIM & K-PLANE PUMPS
(BILGE / SHIFTER PANEL)
DR BY: KKE CH BY:
DATE: 6-10-92 NO.: 303-015

K-PLANES

TRIM

TRAILER

(UP SOLENOID)

(DOWN SOLENOID)

(TRIM LIMIT)

(UP SOLENOID)

(PUMP PWR TO SW.)

PORT

GN/BU

BU/R

DWN

R/GN

UP

BU

GN

DWN

UP

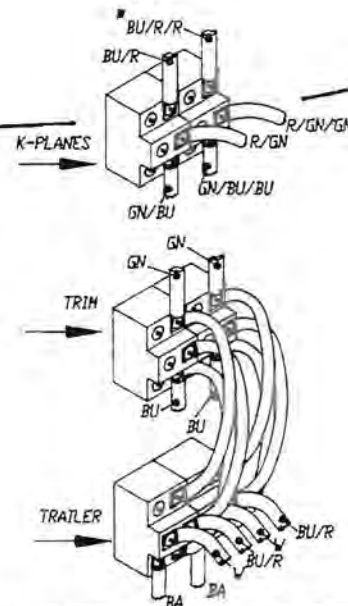
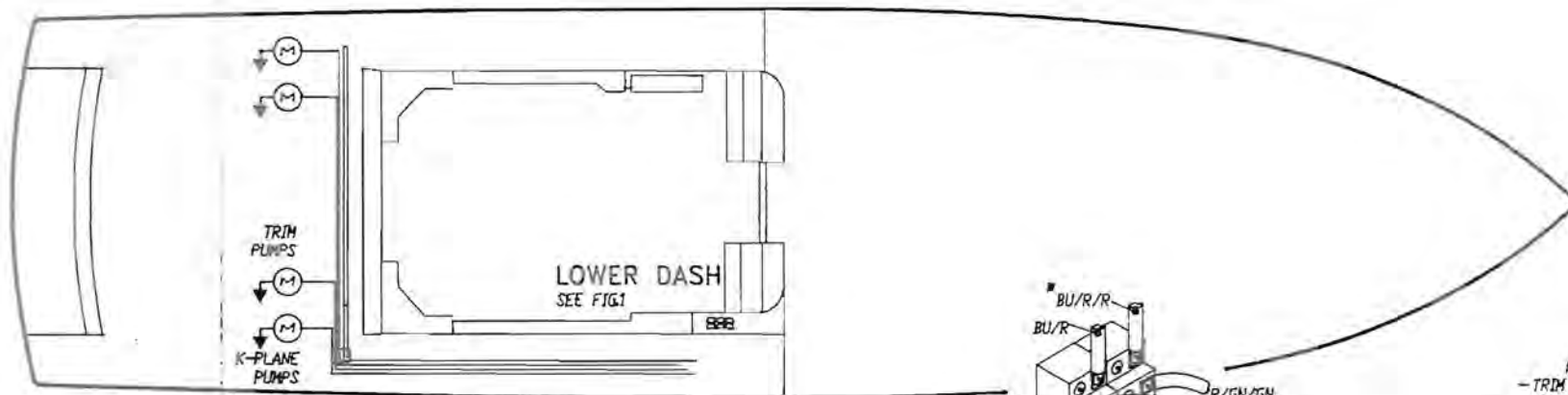
BU

GN

DWN

BA

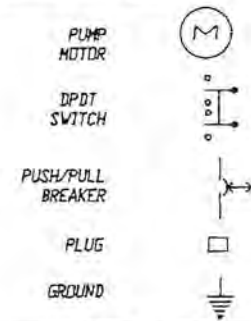
V



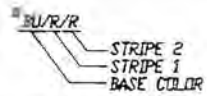
VIEWING FROM BACK SIDE
SEE FIG1 FOR SCHEMATIC
DETAIL.

- NOTES
- TRIM AND K-PLANE PUMPS ARE POWERED BY A 12V DC BATTERY.
 - SEE KIEKHAEFER OWNERS MANUAL FOR K-PLANE WIRING
 - SEE VOLVO OWNER'S MANUAL POWER TRIM WIRING

LEGEND



CODE	BASE COLOR	STRIPE
BA	BLACK	
BL/R	BLUE	RED
BU	BLUE	
GN/BU	GREEN	BLUE
GN	GREEN	
W	WHITE	
R/GN	RED	GREEN



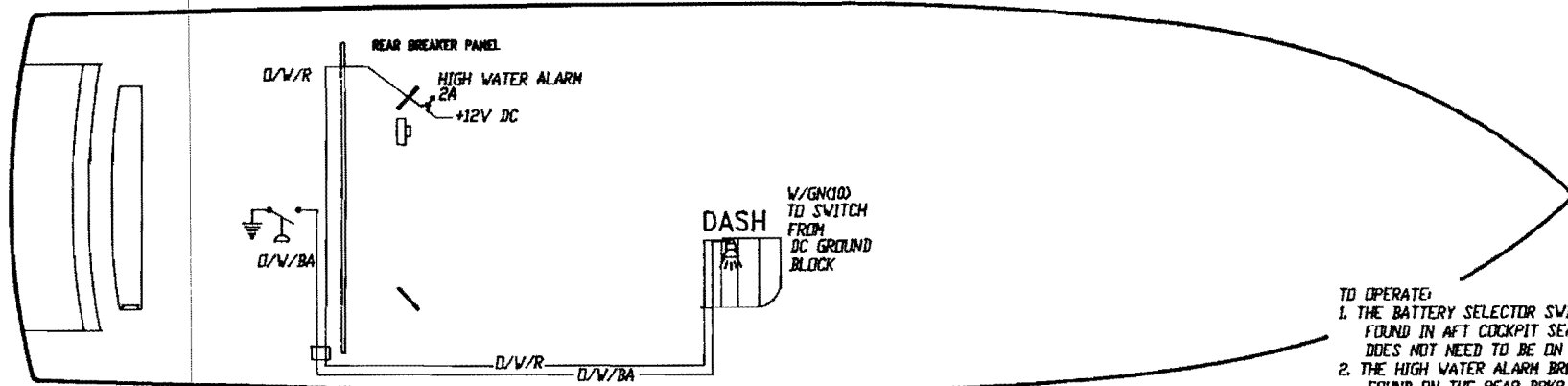
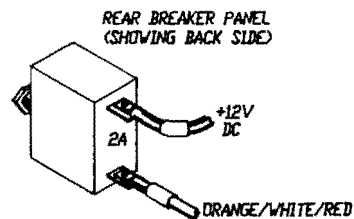
THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

REVISIONS

DR	CH	DATE
----	----	------

FROM HIN # *	TO HIN # *
FROM HIN # *	TO HIN # *
FROM HIN # *	TO HIN # *
FROM HIN # *	TO HIN # *
FROM HIN # *	TO HIN # *

TITLE: F-303	
TRIM & K-PLANE PUMPS (BILGE /SHIFTER PANEL)	
DR BY: KKE	CH BY:
DATE: 6-10-92	NO.: 303-015 b



- TO OPERATE:
1. THE BATTERY SELECTOR SWITCH FOUND IN AFT COCKPIT SEAT PAN DOES NOT NEED TO BE ON L2 OR "ALL".
 2. THE HIGH WATER ALARM BREAKER FOUND ON THE REAR BRKR PANEL MUST BE PUSHED IN (CLOSED).

LEGEND

N.O.
FLOAT SWITCH



PUSH/PULL BREAKER



PLUG



SIREN (ALARM)



GROUND



WHEN WATER IN THE BILGE IS AT A LEVEL THAT MAY REQUIRE MANUAL PUMPING THE UNDER DASH ALARM WILL SOUND.

WHEN ALARM SOUNDS:

1. CHECK TRANSOM SEALS AND DRAINS FOR LEAKAGE.
2. CHECK BATTERY LEVELS. THE BILGE PUMP WILL NOT OPERATE WHEN THE BATTERY IS BELOW FULL CHARGE.
3. CONSULT MARINA'S SERVICE DEPARTMENT OR CONTACT FORMULA'S TECHNICAL ASSISTANCE GROUP.

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR

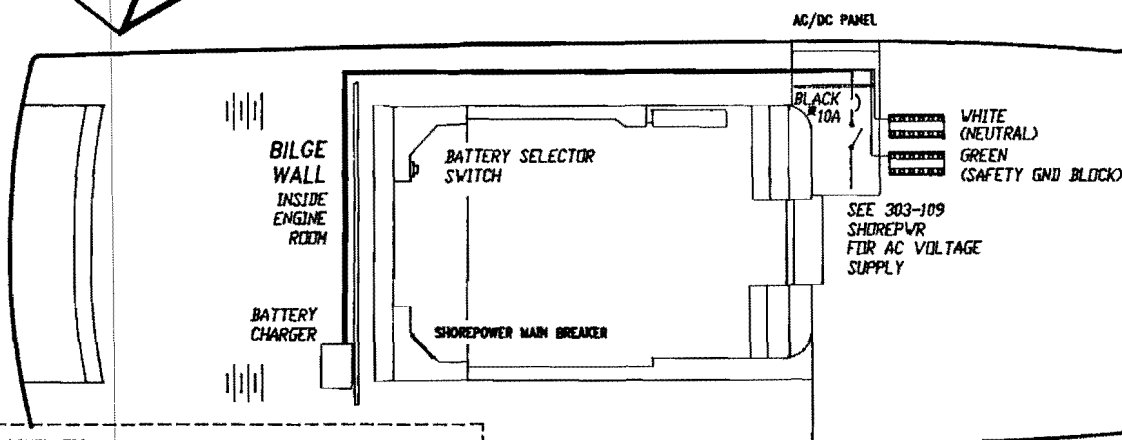
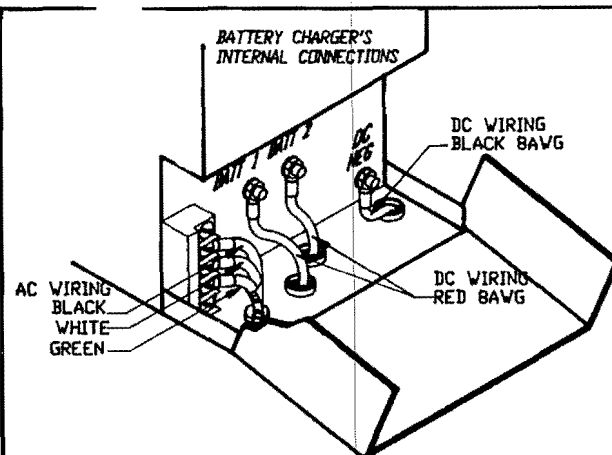
CH

DATE

FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

TITLE: F-303
HIGH WATER ALARM
(ENGINE COMPRT./DASH)
DR BY: KKE CH BY:
DATE: 6-11-91 NO.: 303-017



- TO OPERATE BATTERY CHARGER:
1. READ EACH BATTERY'S DC VOLTAGE LEVEL (NO LOAD) AND MAKE NOTE OF IT.
 2. IN THE AFT SEAT STORAGE, PORT SIDE, SWITCH SHOREPOWER BREAKER TO 'ON'.
 3. ON THE AC/DC PANEL IN CABIN, SWITCH SHOREPOWER BREAKER TO 'ON'.
 4. SWITCH BATTERY CHARGER TO 'ON'.
 5. CHECK FACE OF BATTERY CHARGER FOR DC AVAILABLE LIGHT.
 6. AFTER 24 HOURS OF CHARGING, BATTERIES SHOULD READ 13.6V (NO LOAD).
 7. IF BATTERIES READ BELOW 13V OR DROP UNDER 12V WITHIN 15MIN, FIRST CHECK YOUR VOLTMETER THEN CHECK YOUR BATTERIES.

- NOTE:
- THE BATTERY CHARGER CAN NOT BE DISCONNECTED FROM THE BATTERIES BY THE SELECTOR SWITCH. THE SWITCH DOES NOT DETERMINE WHICH BATTERY WILL RECEIVE CHARGE. THE CHARGER IS DIRECTLY CONNECTED TO BOTH BATTERIES.
 - SEE PROFESSIONAL MARINER LITERATURE FOR FURTHER INFORMATION.
 - 5A FOR 220V/50HZ SUPPLIED.
 - TO CHARGE BATTERIES BY THE ENGINE ALTERNATORS SEE 336-001b.
- WHEN CHARGING WITH ALTERNATORS, THE POSITION OF THE BATTERY SELECTOR SWITCH DOES DETERMINE HOW THE BATTERIES WILL BE CHARGED.

BATTERY CHARGER SYSTEM SCHEMATIC
SEE 303-001a FOR DC SYSTEM

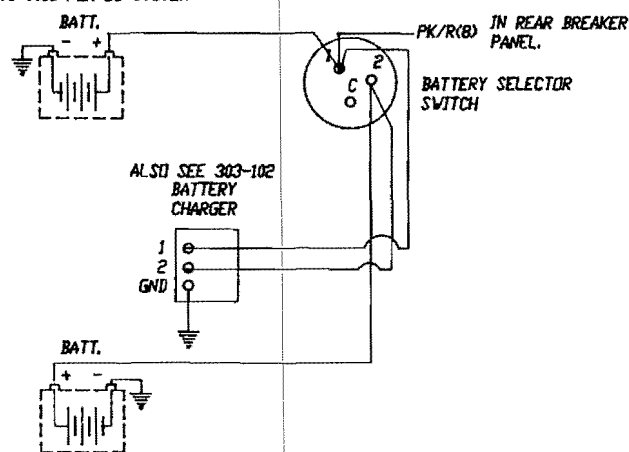
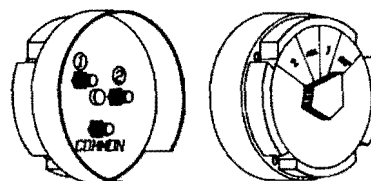
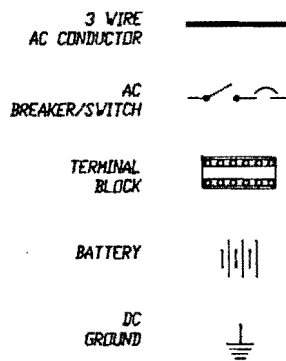


FIG2 BATTERY SELECTOR SWITCH



LEGEND



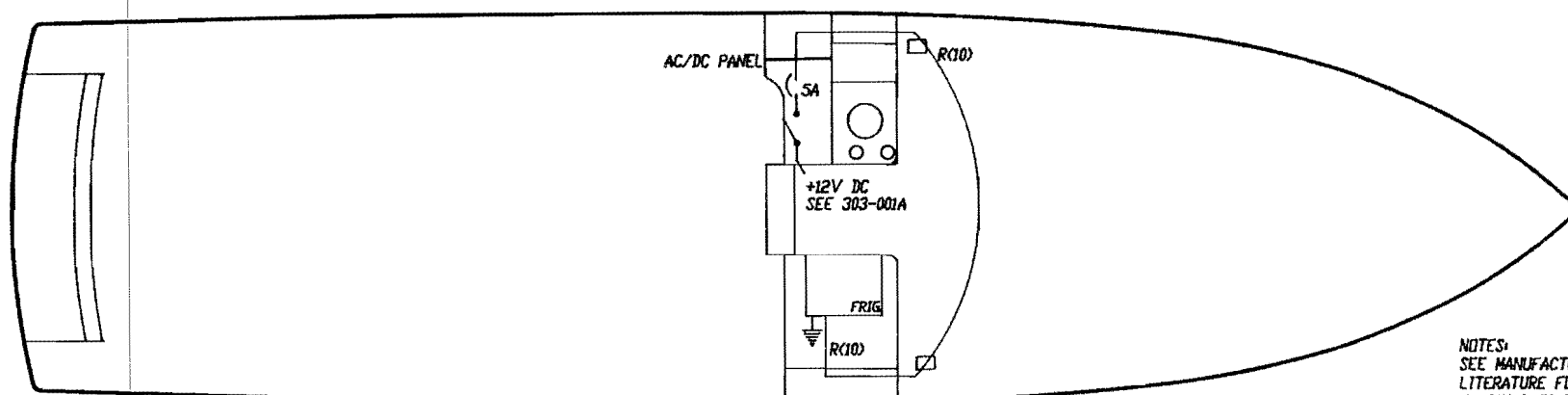
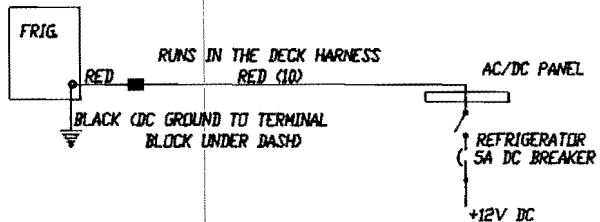
THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

REVISIONS

DR CH DATE

FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #

TITLE: F-303
BATTERY CHARGER WIRING
(AC/DC PANEL / BILGE WALL)
DR BY: KKE CH BY:
DATE: 6-10-92 NO.: 303-102



NOTES:
SEE MANUFACTURER'S
LITERATURE FOR FURTHER
INFORMATION CONCERNING
THE REFRIGERATOR.

* SA BREAKER USED
FOR 220V/50HZ SUPPLY

LEGEND

PLUG



AC
BREAKER/SWITCH



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR CH DATE

FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

TITLE: F-303
REFRIGERATOR
(AC/DC PANEL / GALLEY)

DR BY: KKE CH BY:
DATE: 6-10-92 NO.: 303-108

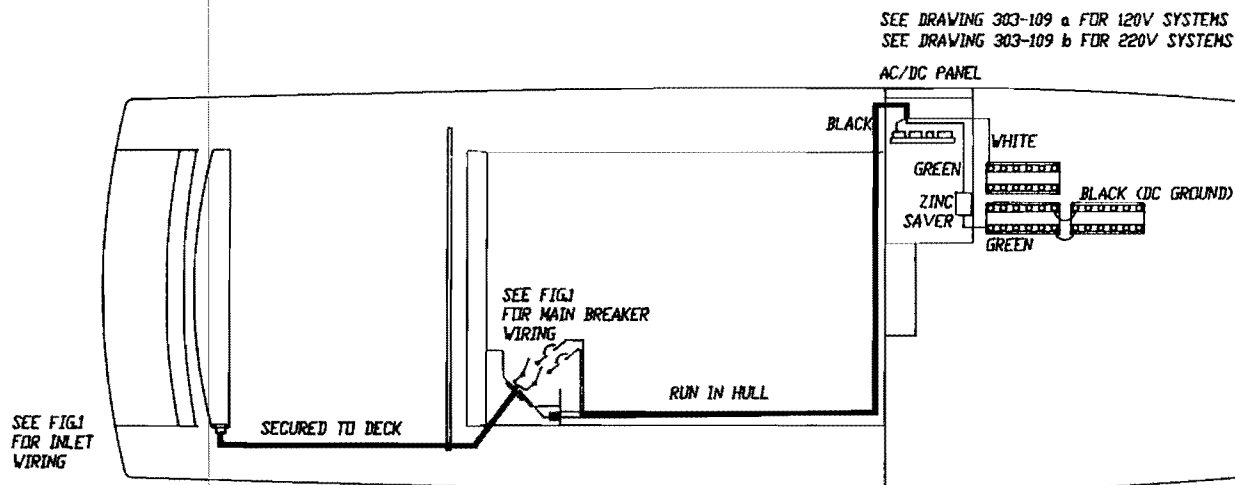
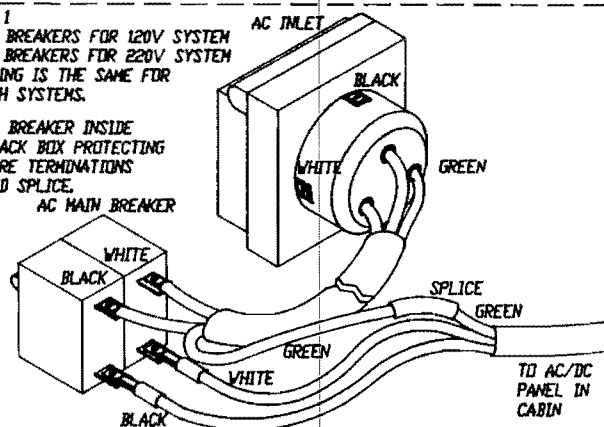


FIG 1
30A BREAKERS FOR 120V SYSTEM
16A BREAKERS FOR 220V SYSTEM
WIRING IS THE SAME FOR BOTH SYSTEMS.

AC BREAKER INSIDE BLACK BOX PROTECTING WIRE TERMINATIONS AND SPLICE.

AC MAIN BREAKER



CONDUCTORS RUN IN DECK

LEGEND

3 WIRE
AC CONDUCTOR



SPLICE



AC
BREAKER/SWITCH



TERMINAL
BLOCK



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR

CH

DATE

FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

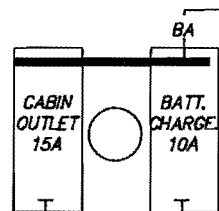
TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

TITLE: F-303
SHOREPOWER

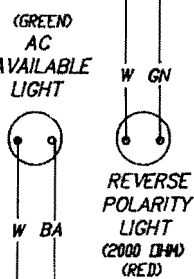
DR BY: KKE
DATE: 6-10-92

CH BY:
NO.: 303-109

POSITIVE
BLACK WIRES
TO RESPECTIVE
APPLIANCES

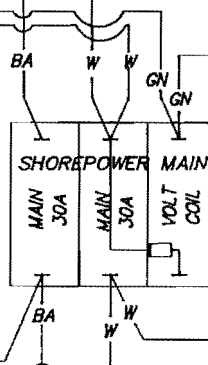


(GREEN)
AC
AVAILABLE
LIGHT



VIEWING BACKSIDE OF PANEL

FROM AFT BREAKER
SHOREPOWER
MAIN



WHITE
WIRES FROM
APPLIANCE
CONDUCTORS



BLACK
WIRES ON
THIS BLOCK
ARE DC
GROUND
WIRES

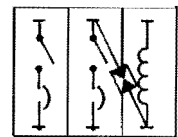
GREEN
GREEN

GREEN WIRES
ARE FROM EACH
APPLIANCE'S
CONDUCTOR.

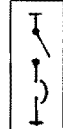
ZINC
SAVER

BREAKERS

3 POLE
SWITCHABLE
BREAKER
w/SURGE ARRESTER



SINGLE POLE
SWITCHABLE
BREAKER



(READ THROUGH BEFORE OPERATING)
TO OPERATE AC EQUIPMENT:

- BEFORE HOOKING UP TO SHOREPOWER, TURN 'OFF' ALL AC EQUIPMENT AND MAIN BREAKER ON AC/DC PANEL IN CABIN. ALSO TURN 'OFF' SHOREPOWER MAIN BREAKER IN AFT COCKPIT SEAT.
- PLUG SHOREPOWER CORD INTO THE BOAT'S SHOREPOWER INLET, FOUND INSIDE HATCH'S AFT POCKET ON STBD SIDE.
- CONNECT OTHER END OF CORD TO SHORE.
- SWITCH SHOREPOWER MAIN BREAKER IN AFT COCKPIT SEAT (STBD SIDE) TO 'ON'.
- IN CABIN, SWITCH AC SYSTEM MAIN TO 'ON'.
WARNING:
IF REVERSED POLARITY LIGHT (RED) IS ILLUMINATED
-DO NOT TOUCH ELECTRICAL APPLIANCES
-LEAVE BOAT IMMEDIATELY
-DISCONNECT SHOREPOWER CABLE AT SHORE OUTLET.
ALSO:
-CONTACT MARINA TO HAVE SUPPLIED SHOREPOWER TESTED FOR REVERSED POLARITY.
-CONTACT FORMULA RELIABILITY CENTER FOR ADDITIONAL SERVICE.
- WHEN AC SYSTEM MAIN BREAKER IS SWITCHED 'ON' AND THE AC AVAILABLE LIGHT (GREEN) IS ILLUMINATED, ALL AC EQUIPMENT BREAKERS ARE SUPPLIED WITH 120V 60HZ. EQUIPMENT IS OPERATIONAL WHEN THE BREAKER BEARING EQUIPMENT NAME IS SWITCHED 'ON'.

ALSO SEE DIAGRAMS OF INDIVIDUAL CIRCUITS.

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR CH DATE

FROM HIN # TO HIN #
FROM HIN # TO HIN #
FROM HIN # TO HIN #
FROM HIN # TO HIN #
FROM HIN # TO HIN #

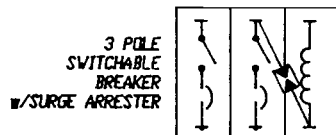
TITLE: F-303 110V/60HZ
AC WIRING AT AC/DC PANEL
(AC-DC PANEL)
DR BY: KKE CH BY:
DATE: 6-10-92 NO. 303-109 a

POSITIVE
BLACK WIRES
TO RESPECTIVE
APPLIANCES

AC CONDUCTORS' COLOR CODE

DOMESTIC	BLACK	CURRENT CARRYING	INTERNATIONAL	BROWN
WHITE	NEUTRAL		BLUE	
GREEN	SAFETY GROUND		GREEN/YELLOW	

BREAKERS



SINGLE POLE
SWITCHABLE
BREAKER

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

REVISIONS

FROM AFT BREAKER
SHOREPOWER
MAIN

(GREEN)
AC
AVAILABLE
LIGHT

REVERSE
POLARITY
LIGHT
(2000 OHM)
(RED)

VIEWING BACKSIDE OF PANEL

BLUE
WIRES FROM
APPLIANCE
CONDUCTORS

BROWN
WIRES ON
THIS BLOCK
ARE DC
GROUND
WIRES

ZINC
SAVER

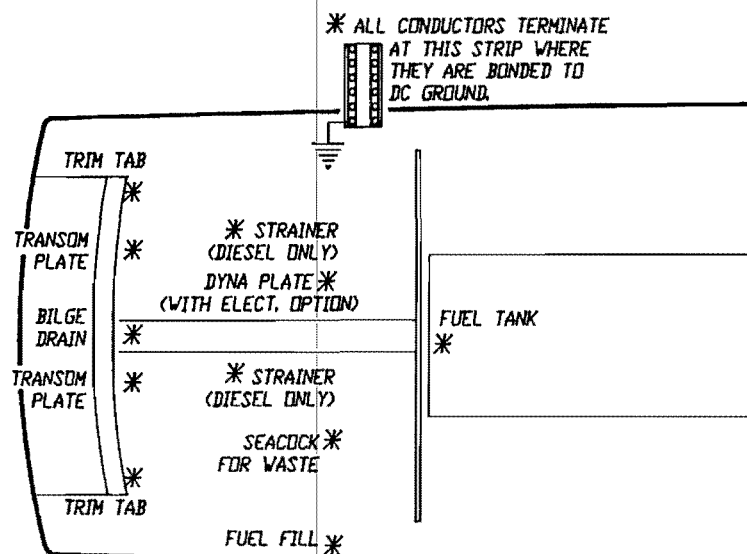
GREEN
GREEN

GREEN/YELLOW WIRES
ARE FROM EACH
APPLIANCE'S
CONDUCTOR.

- (READ THROUGH BEFORE OPERATING)
TO OPERATE AC EQUIPMENT:
- BEFORE HOOKING UP TO SHOREPOWER, TURN 'OFF' ALL AC EQUIPMENT AND MAIN BREAKER ON AC/DC PANEL IN CABIN. ALSO TURN 'OFF' SHOREPOWER MAIN BREAKER IN AFT COCKPIT SEAT.
 - PLUG SHOREPOWER CORD INTO THE BOAT'S SHOREPOWER INLET, FOUND INSIDE HATCH'S AFT POCKET ON STBD SIDE.
 - CONNECT OTHER END OF CORD TO SHORE.
 - SWITCH SHOREPOWER MAIN BREAKER IN AFT COCKPIT SEAT (STBD SIDE) TO 'ON'.
 - IN CABIN, SWITCH AC SYSTEM MAIN TO ON.
WARNING:
IF REVERSED POLARITY LIGHT (RED) IS ILLUMINATED
-DO NOT TOUCH ELECTRICAL APPLIANCES
-LEAVE BOAT IMMEDIATELY
-DISCONNECT SHOREPOWER CABLE AT SHORE OUTLET.
- ALSO,
-CONTACT MARINA TO HAVE SUPPLIED SHOREPOWER TESTED FOR REVERSED POLARITY.
-CONTACT FORMULA RELIABILITY CENTER FOR ADDITIONAL SERVICE.
- WHEN AC SYSTEM MAIN BREAKER IS SWITCHED 'ON' AND THE AC AVAILABLE LIGHT (GREEN) IS ILLUMINATED, ALL AC EQUIPMENT BREAKERS ARE SUPPLIED WITH 220V 50HZ. EQUIPMENT IS OPERATIONAL WHEN THE BREAKER BEARING EQUIPMENT NAME IS SWITCHED 'ON'.

ALSO SEE DIAGRAMS OF INDIVIDUAL CIRCUITS.

FROM HIN #	TO HIN #	TITLE: F-271	220V/50HZ
FROM HIN #	TO HIN #	AC WIRING AT AC/DC PANEL	(AC-DC PANEL)
FROM HIN #	TO HIN #	DR BY: KKE	CH BY:
FROM HIN #	TO HIN #	DATE: 6-11-91	NO. 303-109 b



NOTES:
 - ALL CONDUCTORS ARE 8AWG
 GREEN MARINE GRADE WIRE.
 - SEE BONDING WORKSHEET
 FOR TESTING PROCEDURES.

THUNDERBIRD PRODUCTS
 P.O. BOX 501
 DECATUR, IN 46733
 (219) 724-9111

4
3
2
1
#

REVISIONS

DR

CH

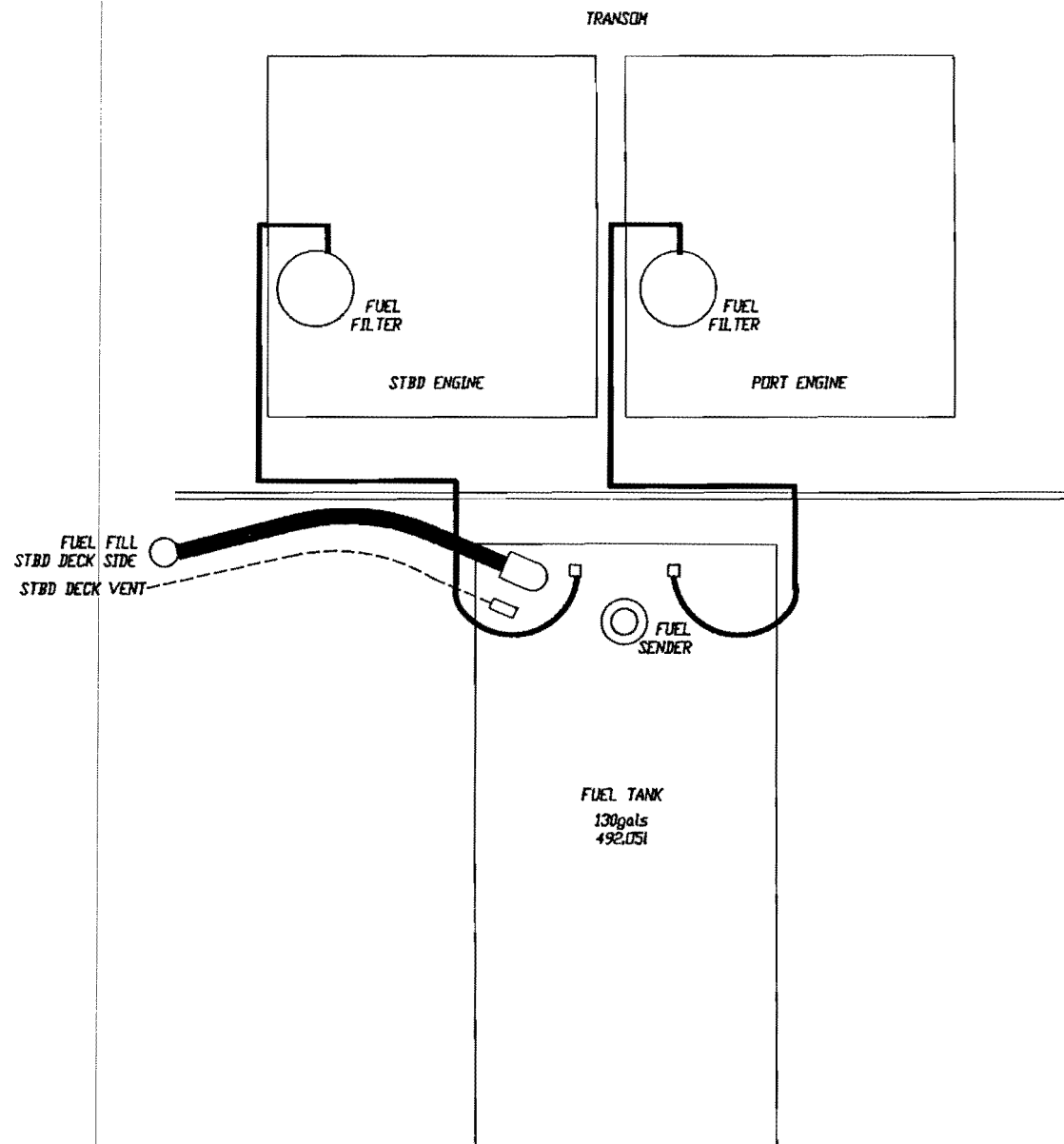
DATE

FROM HIN #
 FROM HIN #
 FROM HIN #
 FROM HIN #
 FROM HIN #

TO HIN #
 TO HIN #
 TO HIN #
 TO HIN #
 TO HIN #

TITLE: F-303
 BONDED EQUIPMENT

DR BY: KKE CH BY:
 DATE: 10-8-91 NO.: 303-120



LEGEND

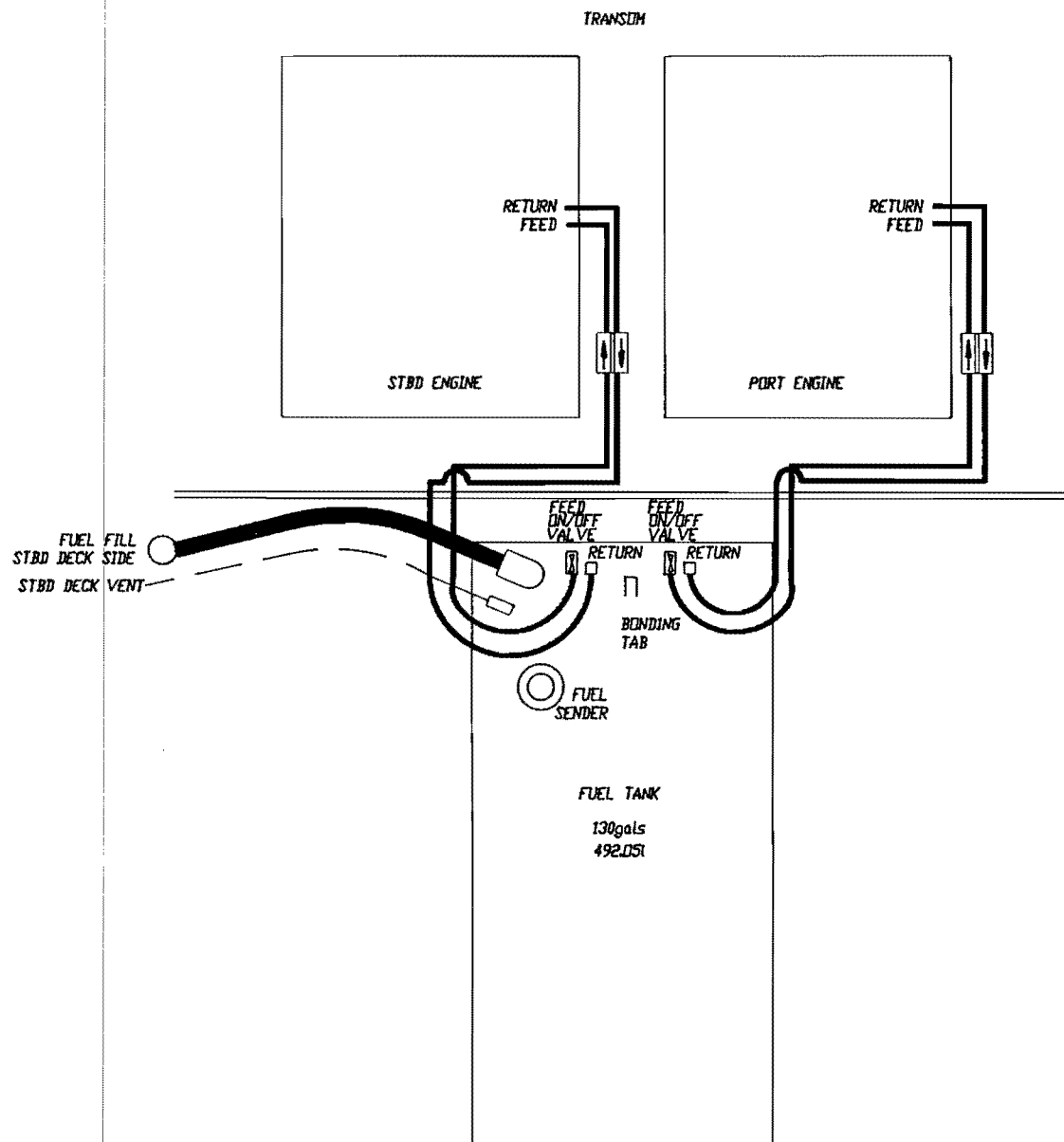
FUEL LINES
USCG TYPE A-1
3/8" SAE J1527
(9.525 mm)

FUEL FILL
USCG TYPE A-1
1 1/2" ID SAE J1527
2 (38.1 mm)

VENT LINE
USCG TYPE A-1
5/8" SAE J1527
(15.8 mm)

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

REV	DESCRIPTION	DATE	CH	DR	FROM HIN #	TO HIN #	TITLE: F-303
4							FUEL SYSTEM DIAGRAM (GAS)
3							(BTLGE)
2							DR BY: KKE
1							CH BY:
#	REVISIONS				FROM HIN #	TO HIN #	DATE: 6-11-92 NO.: 303-130 a



LEGEND

FUEL LINES
USCG TYPE A-1
3/8" SAE J1527
(9.525 mm)

FUEL FILL
USCG TYPE A-1
1 1/2" ID SAE J1527
2 (38.1 mm)

VENT LINE
USCG TYPE A-1
5/8" SAE J1527
(15.8 mm)

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR

CH

DATE

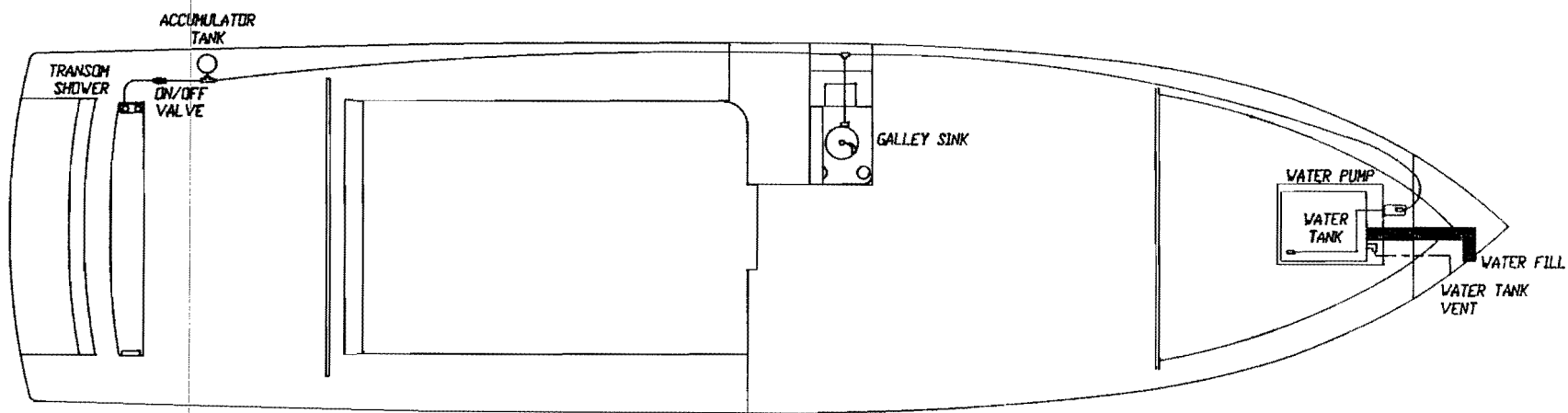
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

TITLE: F-303
FUEL SYSTEM DIAGRAM
DIESEL-VOL V/D

DR BY: KRE CH BY:

DATE: 6-11-92 NO.: 303-130 b



LEGEND

COLD WATER LINE —————

VENT LINES - - - - -

WATER FILL —————

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

DR

CH

DATE

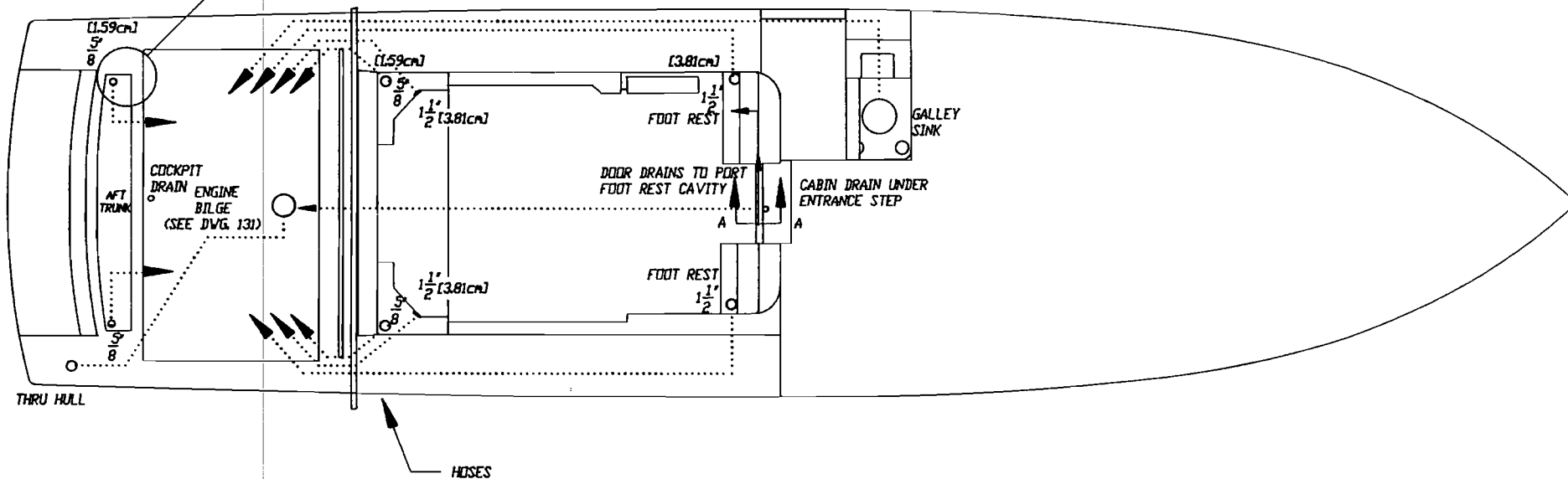
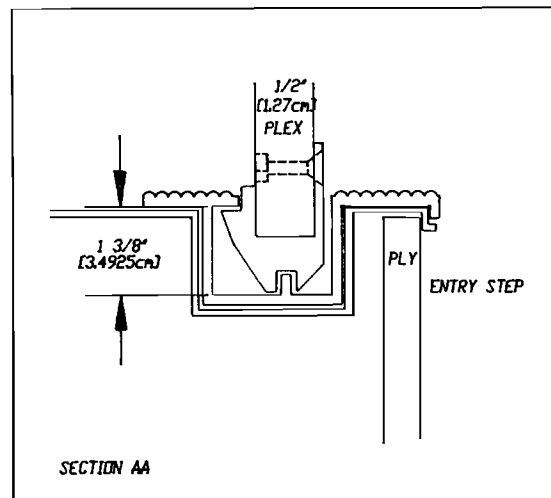
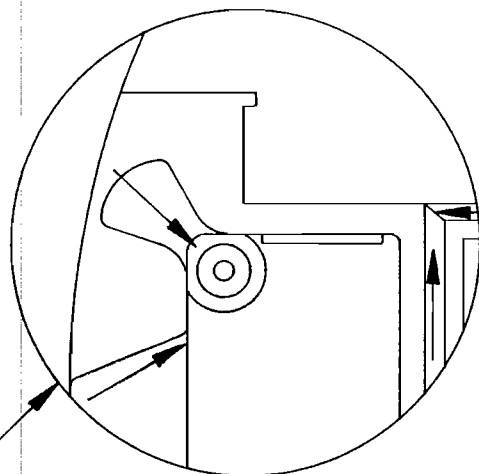
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

TITLE: F-303
PLUMBING SYSTEM

DR BY: KKE
DATE: 6-10-92

CH BY:
NO.: 303-131



NOTE: ALL COCKPIT DRAINS DRAIN TO THE ENGINE BILGE.

ALL DRAINS SIT ABOVE THE WATERLINE

LEGEND

VENT LINES -----

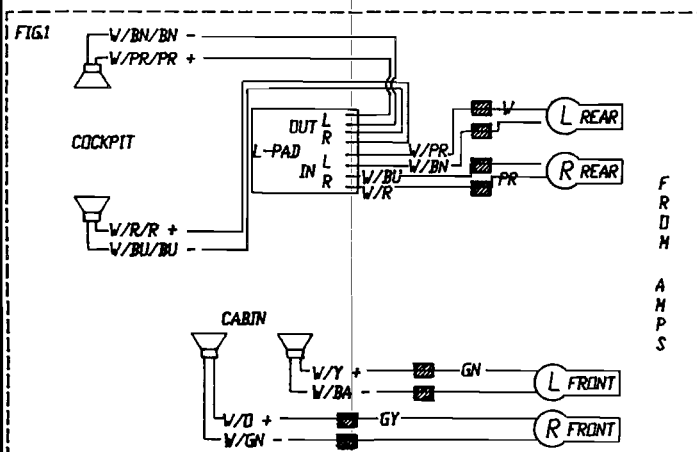
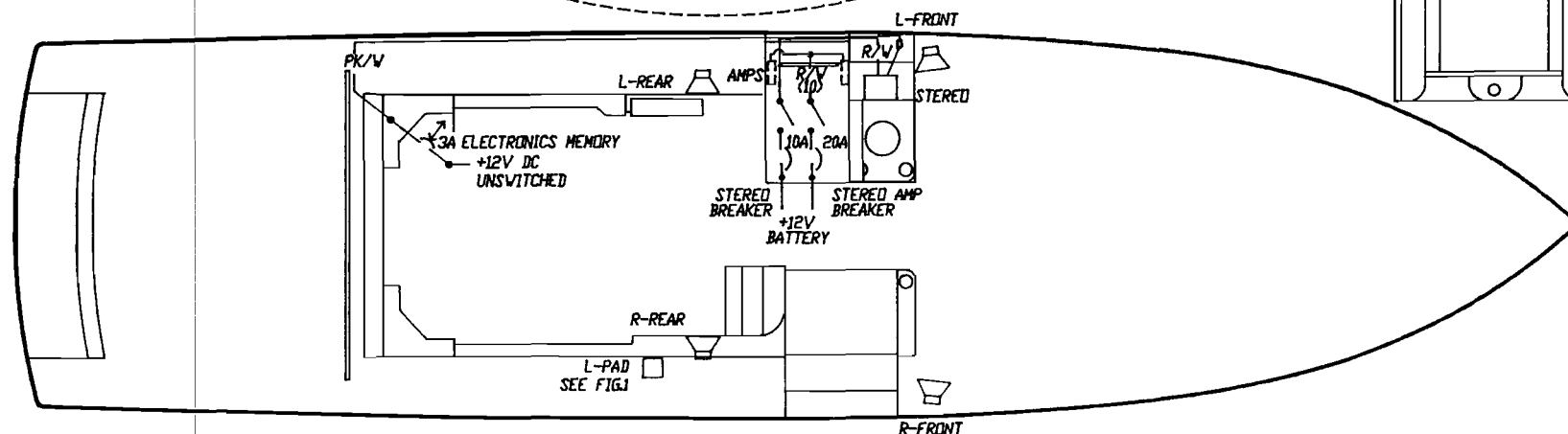
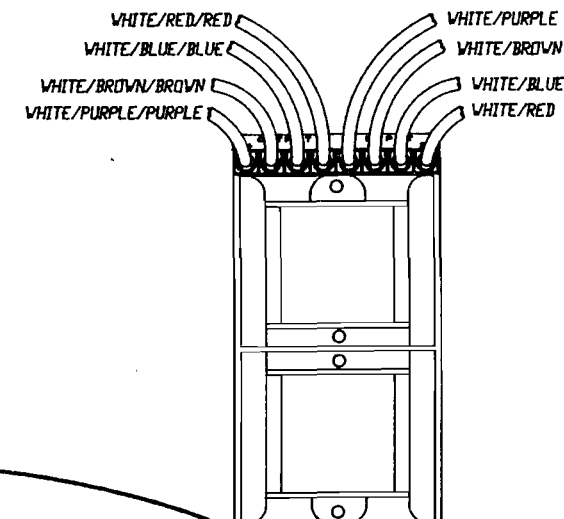
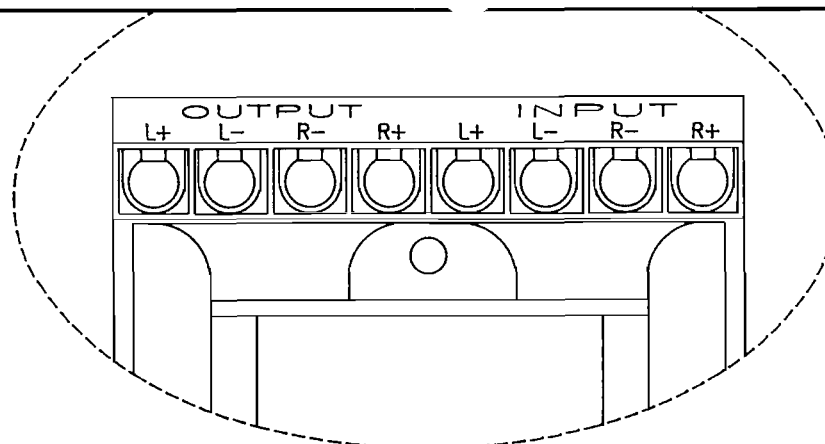
DRAINAGE

THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1
#

REVISIONS

FROM HIN #	TO HIN #	TITLE: F-303
FROM HIN #	TO HIN #	COCKPIT DRAINAGE
FROM HIN #	TO HIN #	DR BY: KKE
FROM HIN #	TO HIN #	CH BY:
FROM HIN #	TO HIN #	DATE: 6-11-92
FROM HIN #	TO HIN #	NO.: 303-131 b.



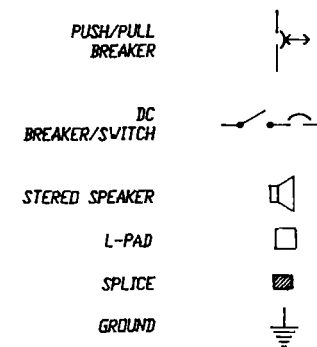
STEREO REMOVAL

1. TURN THE BATTERY SELECTOR SWITCH, FOUND IN THE PORT AFT COCKPIT STORAGE, TO '1' OR '2'.
2. AT THE IGNITION PANEL, TURN THE PORT IGNITION SWITCH TO ITS FIRST POSITION THEN OFF.
3. YOU NOW HAVE 15 SECONDS TO RETURN TO THE CABIN AND REMOVE THE STEREO FROM ITS BASKET.

STEREO OPERATION

1. TURN THE BATTERY SELECTOR SWITCH, FOUND IN THE PORT AFT COCKPIT STORAGE, TO '1' OR '2'.
2. THE ELECTRONICS MEMORY BREAKER IN THE AFT BREAKER PANEL MUST BE PUSHED IN.
3. THE DC MAIN STEREO AND STEREO AMP BREAKERS AT THE AC/DC PANEL MUST BE SWITCHED ON.
4. POWER IS NOW SUPPLIED TO THE STEREO AND CAN BE TURNED ON AT THE UNIT.
5. TO REDUCE THE VOLUME OF THE COCKPIT SPEAKERS ONLY, TURN THE L-PAD CONTROL, AT THE DASH, TOWARD THE '0'.

LEGEND



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

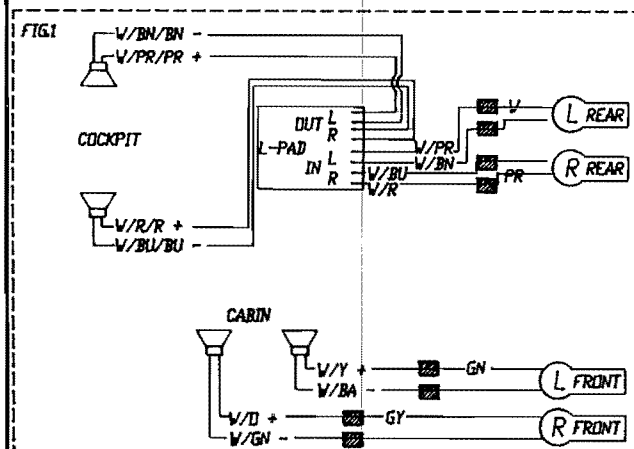
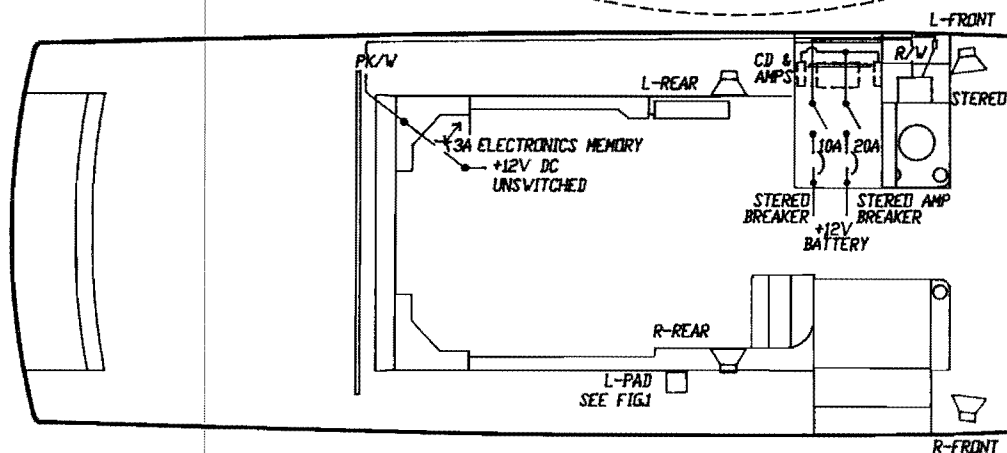
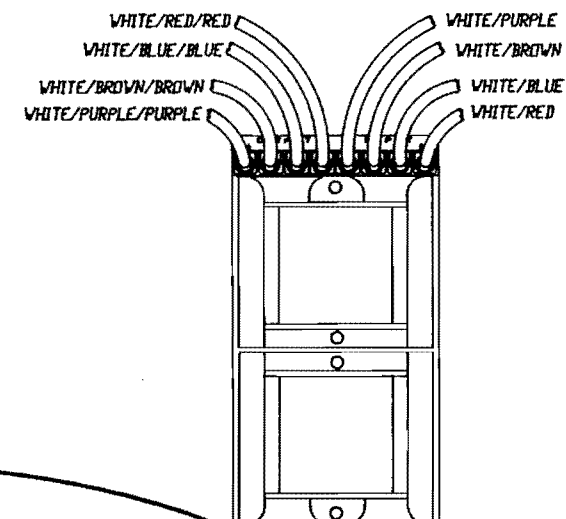
4
3
2
1
#

REVISIONS

DR CH DATE

FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #
FROM HIN #	TO HIN #

TITLE: F-303
STEREO SYSTEM WITH AMPS
DR BY: KKE CH BY:
DATE: 6-12-92 NO.: 303-140 a



1. TURN THE BATTERY SELECTOR SWITCH, FOUND IN THE PORT AFT COCKPIT STORAGE, TO '1/2' OR 'ALL'.
2. AT THE IGNITION PANEL, TURN THE PORT IGNITION SWITCH TO ITS FIRST POSITION THEN OFF.
3. YOU NOW HAVE 15 SECONDS TO RETURN TO THE CABIN AND REMOVE THE STEREO FROM ITS BASKET.

1. THE ELECTRONICS MEMORY BREAKER IN THE AFT BREAKER PANEL MUST BE PUSHED IN.
2. THE DC MAIN STEREO AND STEREO AMP BREAKERS AT THE AC/DC PANEL MUST BE SWITCHED ON.
3. POWER IS NOW SUPPLIED TO THE STEREO AND CAN BE TURNED ON AT THE UNIT.
4. TO REDUCE THE VOLUME OF THE COCKPIT SPEAKERS ONLY, TURN THE L-PAD CONTROL, AT THE DASH, TOWARD THE '0'.

LEGEND

PUSH/PULL
BREAKER



DC
BREAKER/SWITCH



STEREO SPEAKER



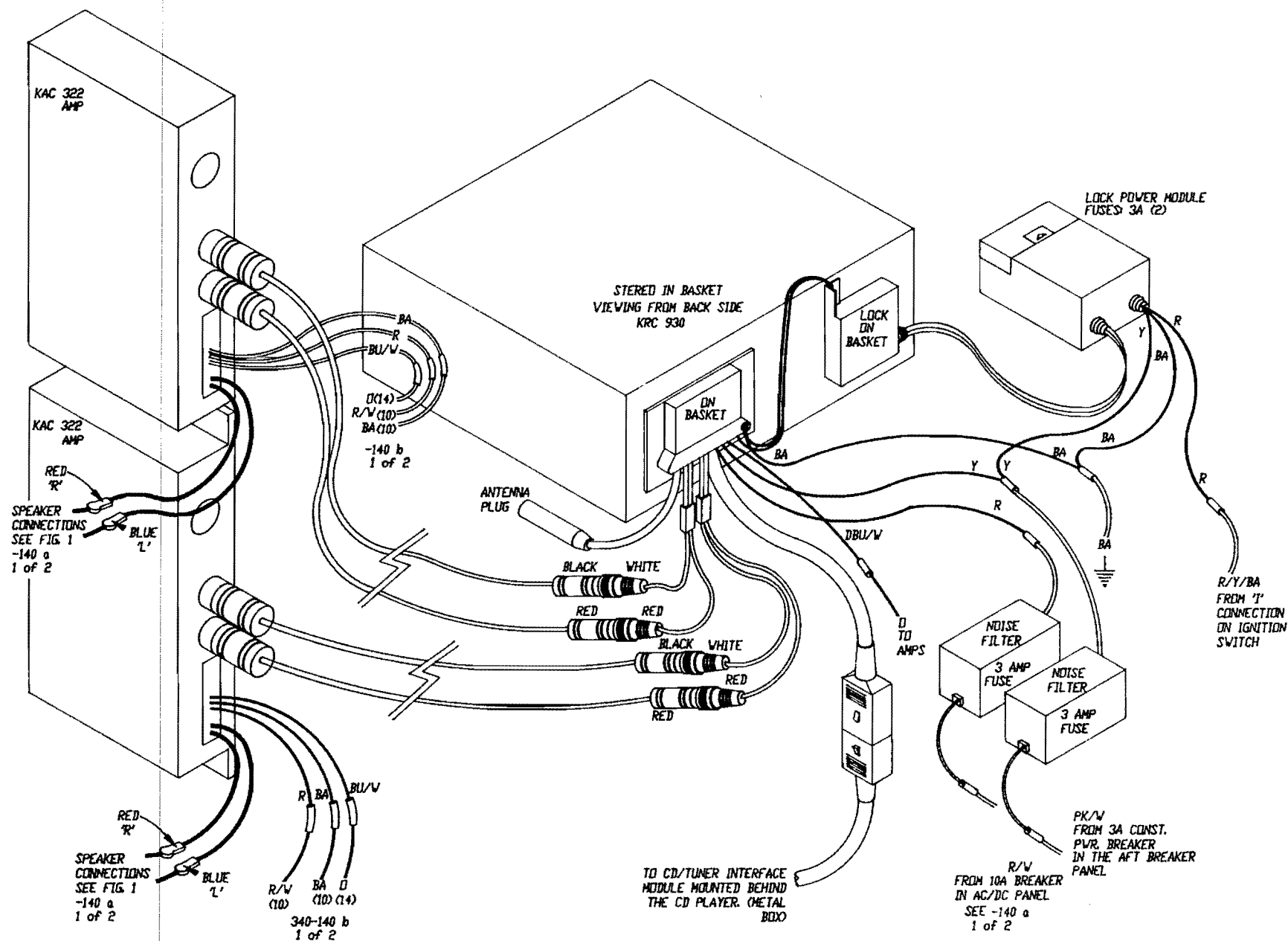
SPLICE

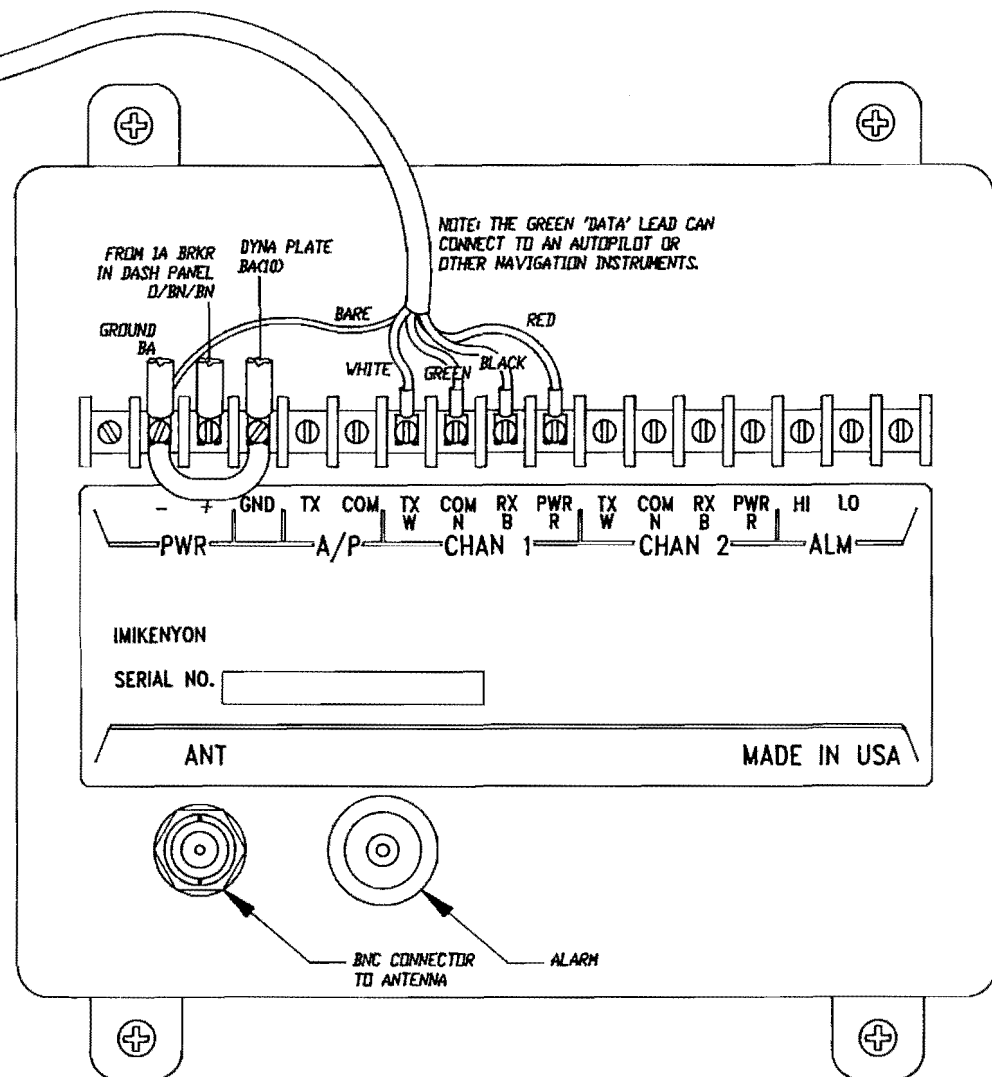
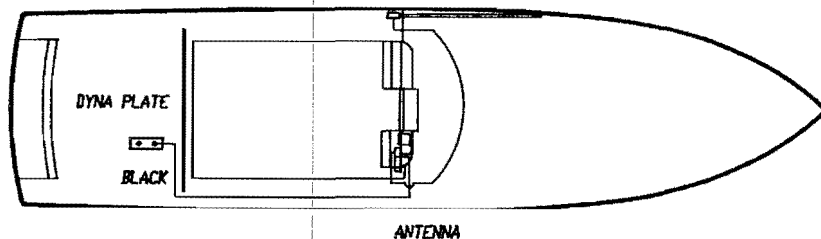
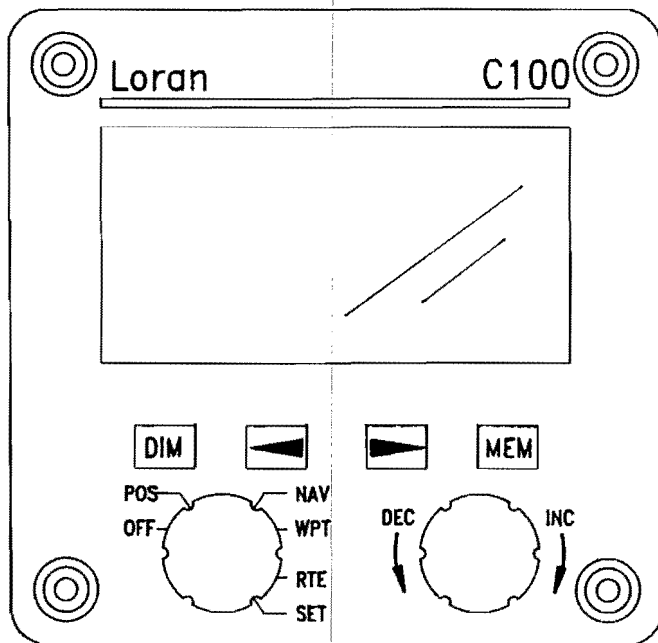


GROUND



THUNDERBIRD PRODUCTS P.O. BOX 501 DECATUR, IN 46733 (219) 724-9111	4						FROM HIN #	TO HIN #	TITLE: F-303 STERED SYSTEM			
	3						FROM HIN #	TO HIN #				
	2						FROM HIN #	TO HIN #				
	1						FROM HIN #	TO HIN #	DR BY: KKE	CH BY:		
	1						FROM HIN #	TO HIN #	DATE: 9-10-91	NO.: 303-140 b		
							REVISIONS	DR	CH	DATE		

[illegible]



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4
3
2
1

REVISIONS

DR

CH

DATE

FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #
FROM HIN #

TO HIN #
TO HIN #
TO HIN #
TO HIN #
TO HIN #

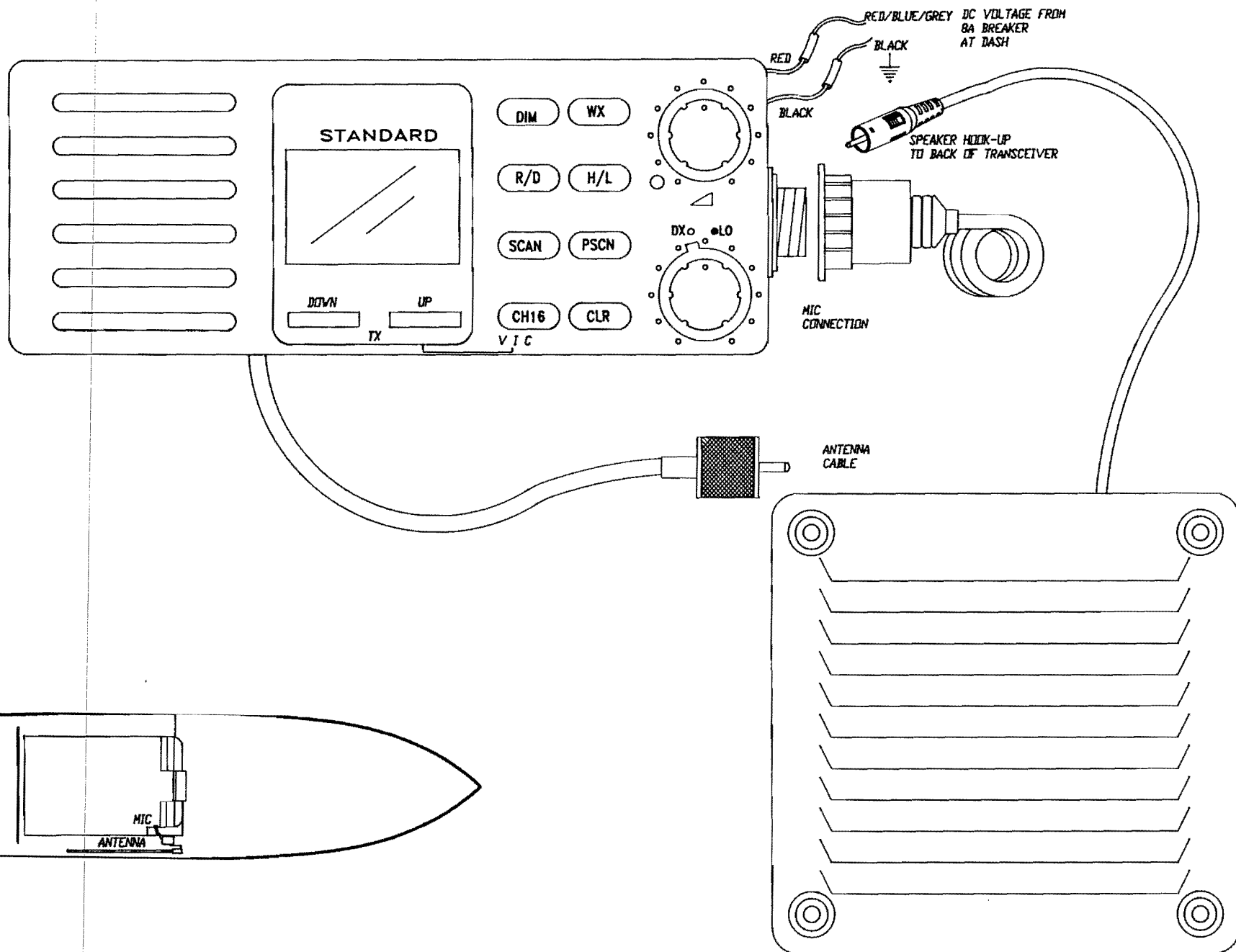
TITLE: F-303
LORAN WIRING
DIRECTIVE

DR BY: KKE

CH BY:

DATE: 6-12-92

NO: 303-143



THUNDERBIRD PRODUCTS
P.O. BOX 501
DECATUR, IN 46733
(219) 724-9111

4						FROM HIN #	TO HIN #	TITLE: F-303 VHF RADIO WIRING
3						FROM HIN #	TO HIN #	
2						FROM HIN #	TO HIN #	DR BY: KKE CH BY:
1						FROM HIN #	TO HIN #	
#						FROM HIN #	TO HIN #	DATE: 6-12-92 NO.: 303-144

REVISIONS

DR

CH

DATE