







DRAWING HISTORY					
REV. NO.	DATE	DESCRIPTION	REMARK		
0	2024.11.28.	ISSUED FOR APPROVAL.			
0	2025.02.14.	KOMSA 승인 도면 필 함.			
1	2025.04.03.	ISSUED FOR OWNER APPROVAL.			
TOTAL (36) SHEETS WITH A COVER.					
OWNER  여수시		BUILDER  영창중공업(주)			
APP. BY J.S.KANG		SHIP TYPE G/T 119 톤급 다목적 관공선			
CHK' BY J.H.LIM		TITLE E.W.D OF RADIO,INTERCOM & NAUTICAL SYSTEM [항해 및 통신 계통도]			
CHK' BY Y.J.JOO					
DWN. BY A.J.WILARTO					
 영창중공업 주식회사 Youngchang Heavy Ind.Co.,Ltd. TEL : 061-275-8100 / FAX : 061-275-8101 전남 신안군 지도읍 두류산길 377-111		HULL. NO. H-1017	SHIP NAME -		DWG. NO. OE-003
		DATE 2025.04.03.	SCALE NONE	CLASS KOMSA	REV. NO. 1



01/35

OE-004

REV. NO.	REVISED BY	ABB.	REVISED BY
	FIRST DRAWING	O	OWNER COMMENT
	REVIEWED DRAWING	C	CLASS COMMENT
	FINAL DRAWING	S	SHIP YARD'S COMMENT
		M	MAKER'S RECOMMENDATION
		D	DESIGN IMPROVEMENT
		DM	DESIGN MISTAKE

[illegible]



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02/35

DWG. NO

OE-004

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GENERAL NOTE

1. RULE AND REGULATION : KOMSA

2. SHIP'S FLAG : KOREA

3. EXPLANATION OF CABLE MARKING

1)	<u>T1</u> P0000	YARD'S SUPPLY / CONNECTION CABLE
2)	<u>---T1---</u> P0000	USED CABLE IN OTHER SYSTEM
3)	<u>*</u>	MAKER'S SUPPLY / CONNECTION CABLE
4)	<u>---*---</u>	INTER-WIRING OR MAKER WORKS & SUPPLY (INNER CONNECTION OR FITTING ON EQUIP BODY)
5)	<u>T1(IS)</u>	INTRINSICALLY SAFT TYPE CABLE - INTRINSICALLY SAFT CIRCUITS ARE TO BE MARKED WITH (IS) ON THE DRAWING (TOGETHER WITH CABLE TYPE), AND THESE CIRCUITS ARE TO BE SEPARATED (50MM) FROM ANY OTHER NORMAL CABLES.

4. CIRCUIT DESIGNATION

			SYSTEM TITLE	
EX)	P	01 01	P	E.W.D OF POWER SYSTEM
			L	E.W.D OF LIGHTING SYSTM
			C	E.W.D OF CONTROL SYSTEM
			F	CABLE DIA. OF ARR'T OF FIRE DET. & ALARM SYS.
			A	ARR'T OF ELEC. EQUIPMENT
			N	E.W.D OF RADIO, INTER-COM & NAUTICAL SYS.
			S	ARR'T OF NAV. & SIGNAL LIGHT

5. THE NUMBER ABOVE THE SYMBOL OF CIRCUIT BREAKER SHOWS THE FRAME SIZE AND SETTING CURRENT OF THE CIRCUIT BREAKER.

EX) 100/60

100 : FRAME SIZE (100A)

60 : SETTING CURRENT (60A)

INST : INSTANTANEOUS TRIP ONLY IF INDICATED

6. THE WIRING DIAGRAM SHOWS THE KIND OF CABLE CONDUCTOR SIZE, AMPERE RATING AND THE PROTECTIVE DEVICES FOR THE POWER CIRCUITS.

7. THE AIR CIRCUIT BREAKERS OF GENERATORS ARE SO INTERLOCKED AS NOT TO OPERATE IN PARALLEL WITH SHORE SUPPLY AND SPACE HEATERS OF GENERATOR ALSO.

8. THE 2-POLE MOULDED CASE CIRCUIT BREAKERS ARE USED FOR THE SINGLE PHASE CIRCUIT AND ARE SHOWN BY THE MARK OF "2P" UNDER THE MARK OF MOULDED CASE CIRCUIT BREAKERS, THE 3-POLE MOULDED CASE CIRCUIT BREAKERS ARE USED FOR THE THREE PHASE CIRCUITS AND ARE SHOWN WITHOUT ANY MARK.

9. CABLE APPLICATION

- 1) ALL ELECTRIC CABLES TO BE JIS C3410-1999 (JAPANESE INDUSTRIAL STANDARD) OF TYPE APPROVED BY CLASSIFICATION SOCIETY.
- 2) THE POWER CABLES HAVING NOMINAL OUT-DIAMEATER 30MM (TPYC-50) AND ABOVE ARE TO BE INSTALLED WITH NO MORE THAN SIX(6) CABLES BUNCHED OR LAID TOGETHER IN FLAT FORMATION.
- 3) THE CABLE SPECIFICATION FOR THE CIRCUIT OF DOTTED LINE SHALL BE SEEN IN OTHER DRAWINGS OR OTHER PAGE.
- 4) THE CABLE SPECIFICATION ON THIS DRAWING ARE SYMBOLIZED AS SHOWN ON NEXT PAGE.

10. CABLE LEGEND

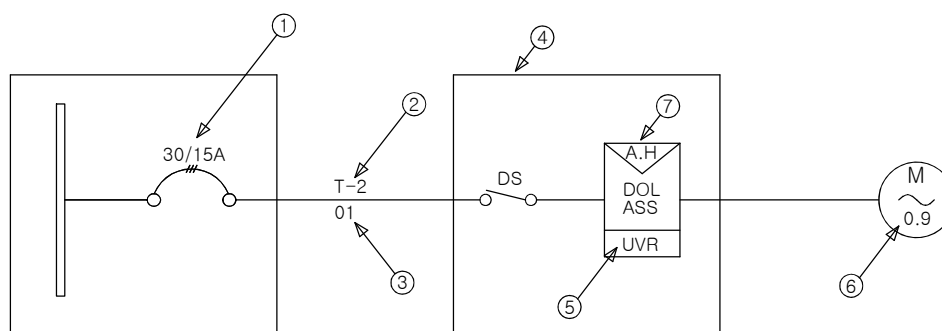
F	T	P	Y	C	(Y)	(S)	(C)	-	1.5	(S)	(FA)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)	(11)

(1)	FIRE RESISTANT (IEC 60331)	
(2)	NUMBER OF CORE	CORE
		S SINGLE
		D DOUBLE
		T THREE
		F FOUR
		M MULTI
		TT TELEPHONE
(3)	EP RUBBER INSULATION OR EP RUBBER INSULATION / MICA GLASS TYPE ("F" CABLE)	INSULATION
		P EP RUBBER
		SR SILICONE RUBBER
(4)	PVC SHEATH	Y PVC
		SHEATH
		N PCP
(5)	STEEL WIRE BRAID	Y PVC
		ARMOUR
		C STEEL WIRE BRAID
(6)	PVC PROTECTIVE COVER	B COPPER WIRE BRAID
		PROTECTION COVER
		Y PVC
(7)	COMMON SHIELD	OTHER WISE
		S COMMON SHIELD
		-S INDIVIDUAL SHIELD
		E EARTH CONDUCTOR
		C COLD CABLE (-30°C)
		RG RADIO GUIDANCE
(8)	-30°C COLD RESISTANT TYPE	
(9)	CONDUCTOR SIZE (SQ MM)	
(10)	INDIVIDUAL OR PAIR SHIELD	
(11)	FLAME RETARDANT (IEC 6033E-3 CASE "AF")	

11. RATED VOLTAGE OF CABLE

CABLE TYPE	NOMINAL SECTION AREA	RATED VOLTAGE
TT TYPE	0.75 MM ²	250V
M TYPE	1.0 MM ²	
ALL CABLES OTHER THAN ABOVE		0.6/1KV

12. CIRCUIT SYMBOL



- ① : MOULDED CASE CIRCUIT BRAKER
- ② : CABLE TYPE
- ③ : CIRCUIT NUMBER
- ④ : STARTER WITH DISCONNECTING SWITCH AND CONTROL UNIT
- ⑤ : STARTING FUNCTION

DOL : DIRECT ON LINE STARTING

Y-D : STAR-DELTA STARTING

A-T : AUTO TRANSFORMER STARTING

SSR : SOFT STARTING

UVR : UNDER VOLTAGE RELEASE

UVP : UNDER VOLTAGE PROTECTION

REV : REVERSIBLE

A-M : AUTO / MANUAL

ASS : AUTO START / STOP

ACVP : AUTO CHANGE OVER BY LOW VOLTAGE & LOW PRESSURE

- ⑥ : MOTOR RATINGS (KW)

- ⑦ : A OR A.H : AMMETER OR AMMETER RUNNING HOUR METER

B.C.C

NDP (AC 220V)

AC 220V 3PH 60Hz BUS BAR

T-10
P2202

MSBD

FROM MSBD (AC 220V)

MCCB
30/15A

D-2
01

AUTO PILOT
(PAGE 12)

MCCB
30/15A

D-2
02

GYRO COMPASS
(PAGE 13)

MCCB
30/15A

D-2
03

MARINE RADAR SYSTEM
(PAGE 15)

MCCB
30/15A

D-2
04

NO.1 DGPS & PLOTTER
(PAGE 16)

MCCB
30/15A

D-2
05

NO.2 DGPS & PLOTTER
(PAGE 16)

MCCB
30/15A

D-2
06

ECHO SOUNDER
(PAGE 17)

MCCB
30/15A

D-2
07

COLOR FISH FINDER
(PAGE 18)

MCCB
30/15A

D-2
08

A.I.S
(PAGE 19)

MCCB
30/15A

D-2
09

ANEMOMETER & ANEMOSCOPE
(PAGE 20)

MCCB
30/15A

D-2
10

ELECTRIC WHISTLE
(PAGE 21)

MCCB
30/15A

D-2
11

PATROL WARNING LIGHT
(PAGE 22)

MCCB
30/15A

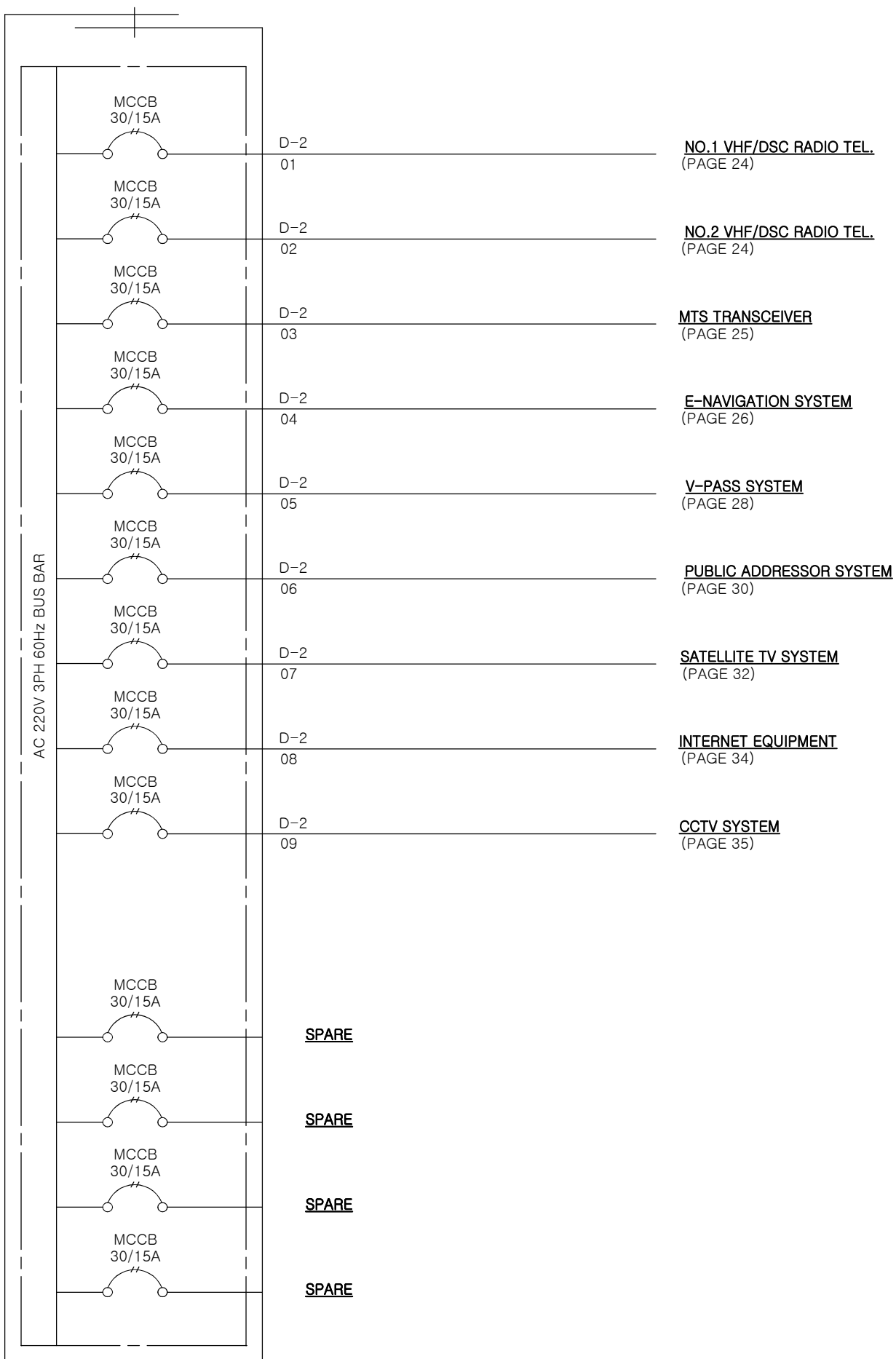
D-2
12

WINDOW WIPER
(PAGE 23)

MCCB
30/15A

D-2
13

HEATED GLASS WINDOW
(PAGE 23)

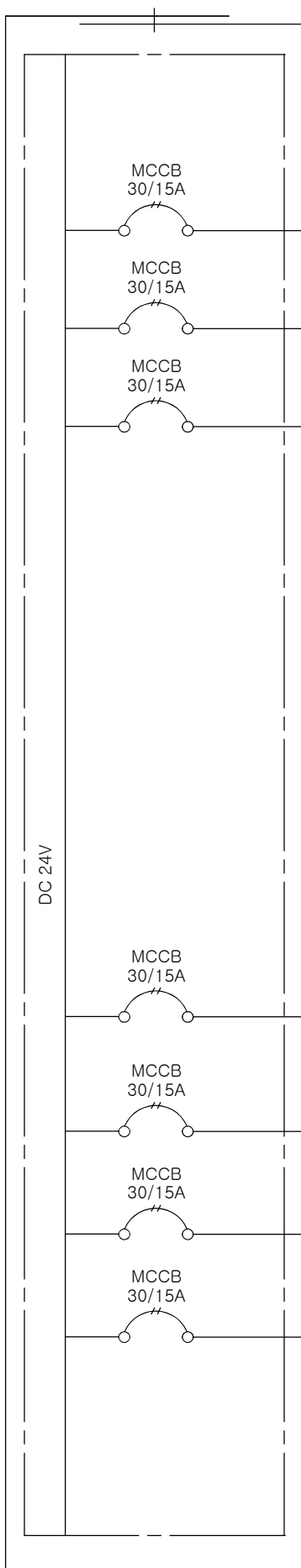


B.C.C

ENDP (DC 24V)

DC 24V





D-2
01

COMMON BATTERY TEL.
(PAGE 29)

D-2
02

PUBLIC ADDRESSOR SYS.
(PAGE 30)

D-2
03

DAYLIGHT SIGNAL LIGHT

SPARE

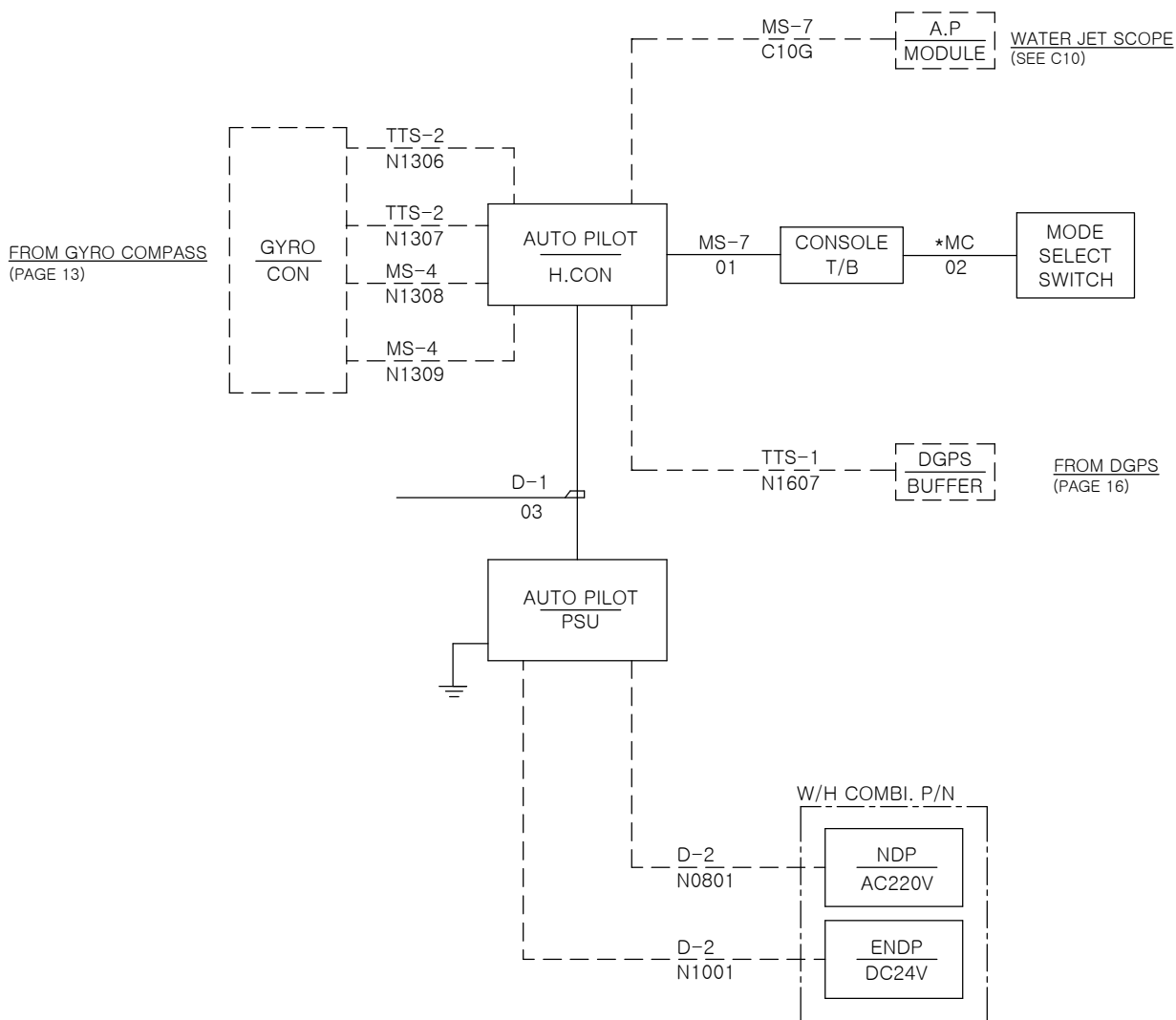
SPARE

SPARE

SPARE

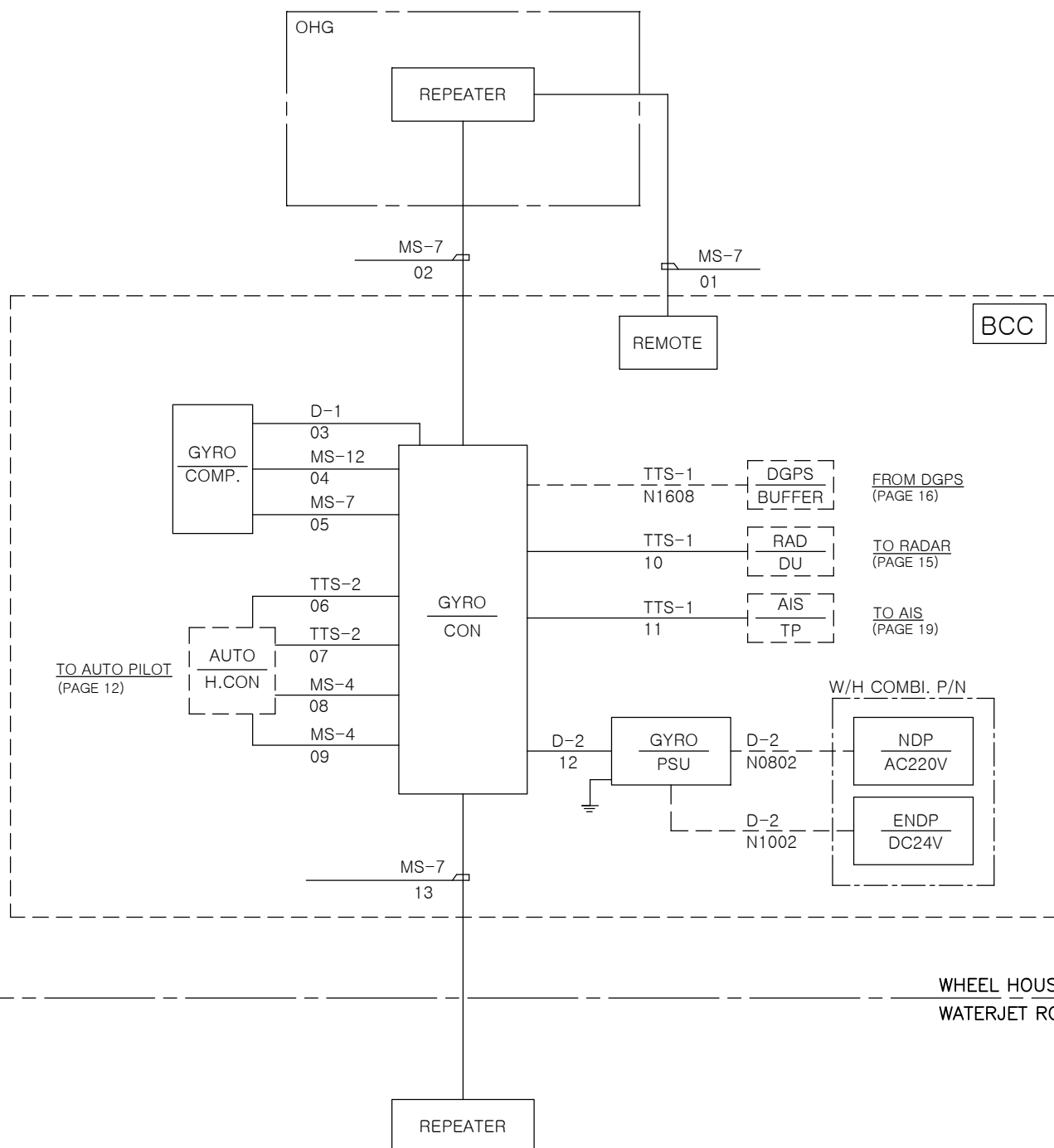
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
AUTO H.CON	HEADING CONTROL TERMINAL UNIT	1					
AUTO PSU	POWER SUPPLY UNIT	1					

* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 '*' MARK IS MAKER SUPPLIES.



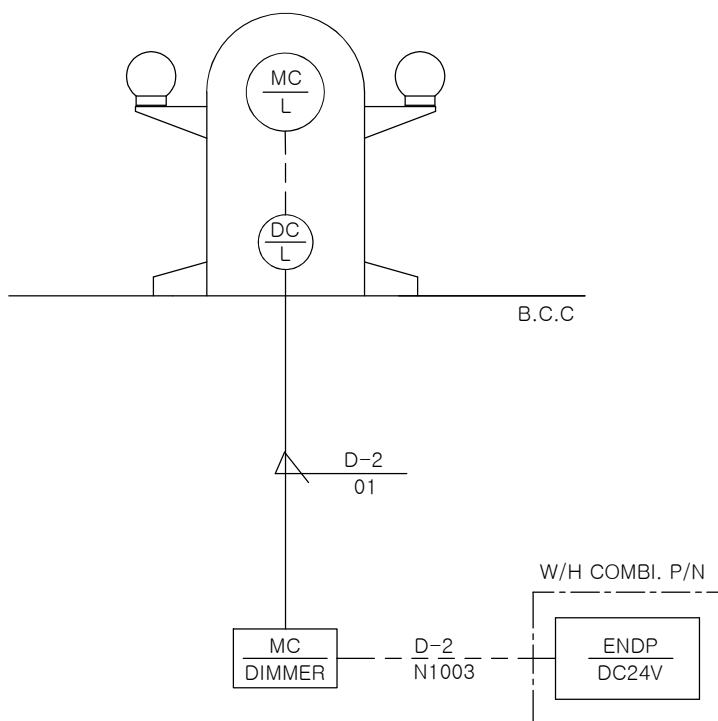
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	GYRO CONTROL UNIT	1			POWER SUPPLY UNIT	1	
	GYRO MASTER COMPASS	1			GYRO REPEATER	2	
	GYRO REMOTE UNIT	1					






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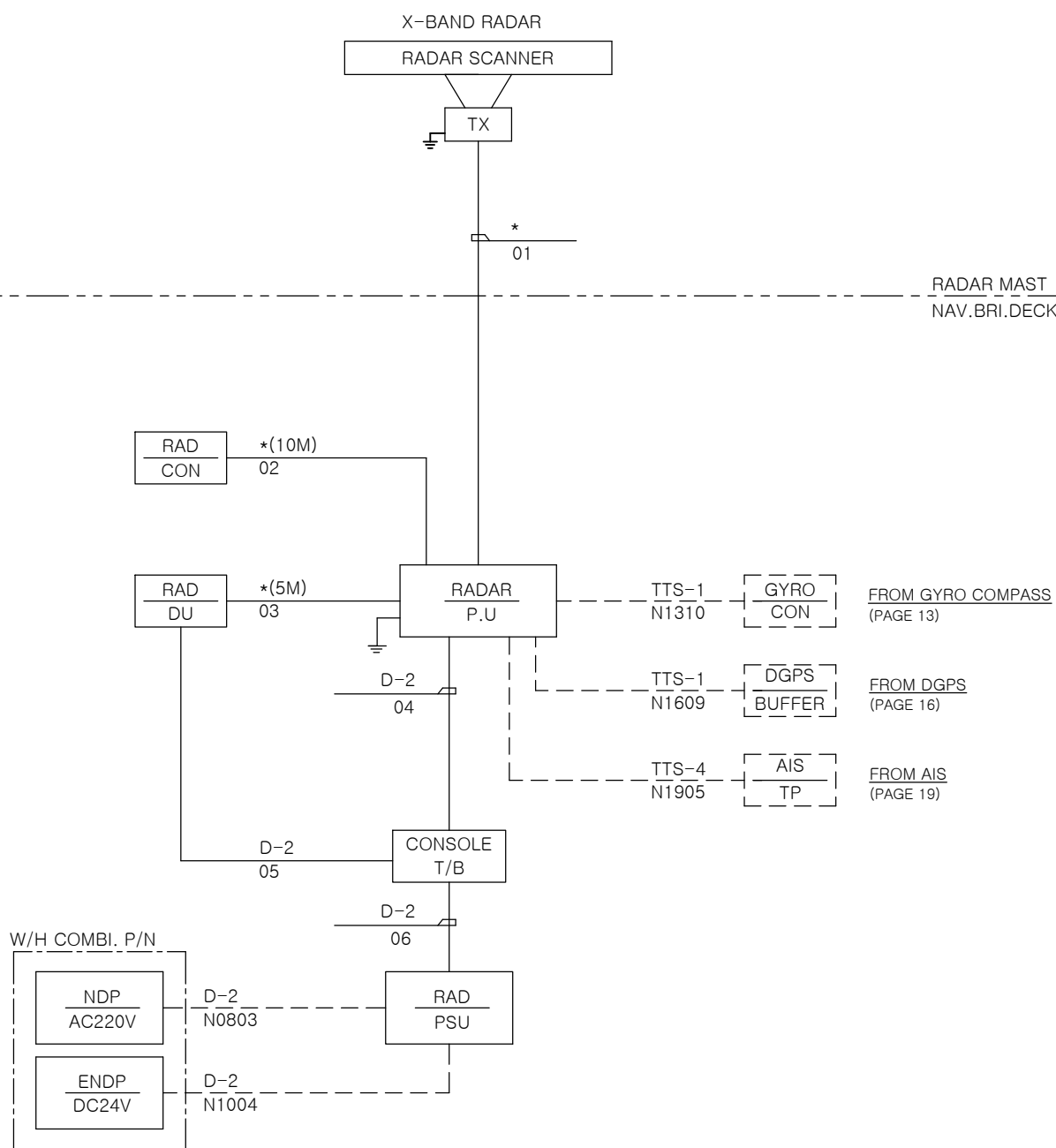
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
$\frac{DC}{L}$	DC DIMMER	1		$\frac{MC}{DIMM}$	DIMMER SWITCH	1	




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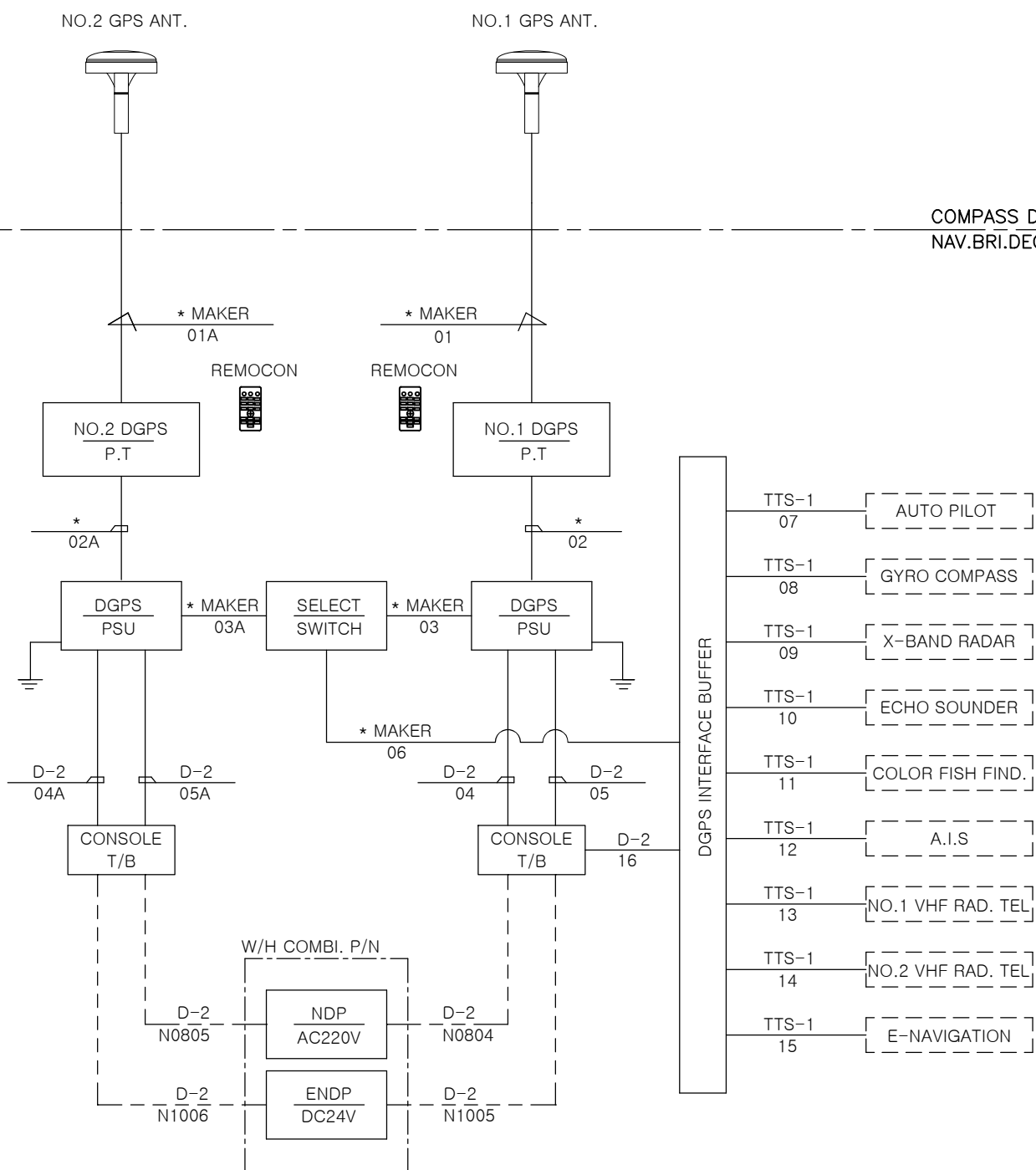
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	COLOR DISPLAY UNIT 19 INCH, LCD	1			RADAR CONTROL UNIT	1	
	SCANNER UNIT WITH TRANSCIEIVER	1			POWER SUPPLY UNIT	1	
	RADAR PROCESSOR UNIT	1					




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 * MODEL :
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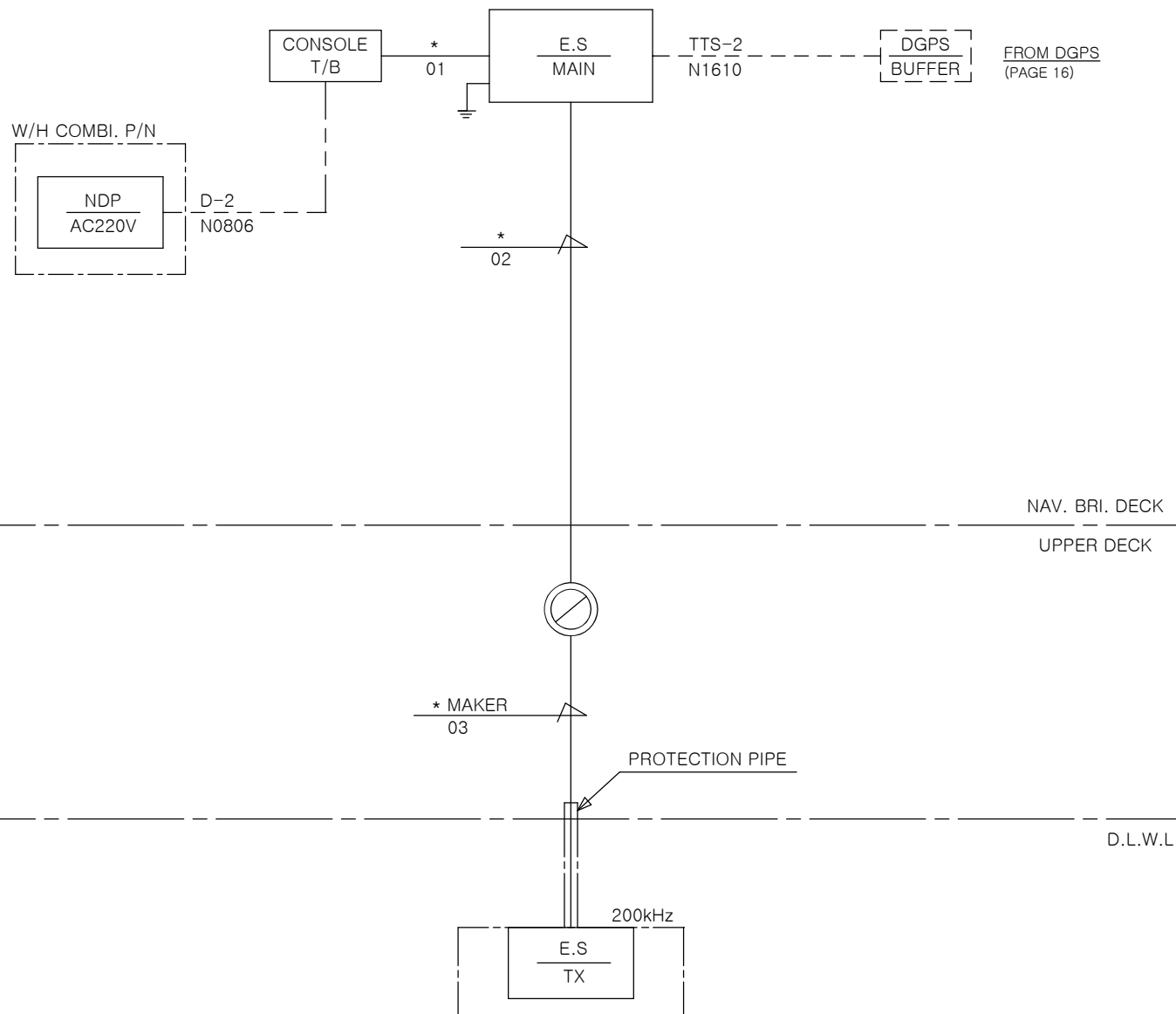
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	DGPS ANTENNA UNIT	2			DGPS PLOTTER 12.1 INCH COLOR	2	
	DGPS PLOTTER POWER SUPPLY UNIT	2					




* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 '* ' MARK IS MAKER SUPPLIES.



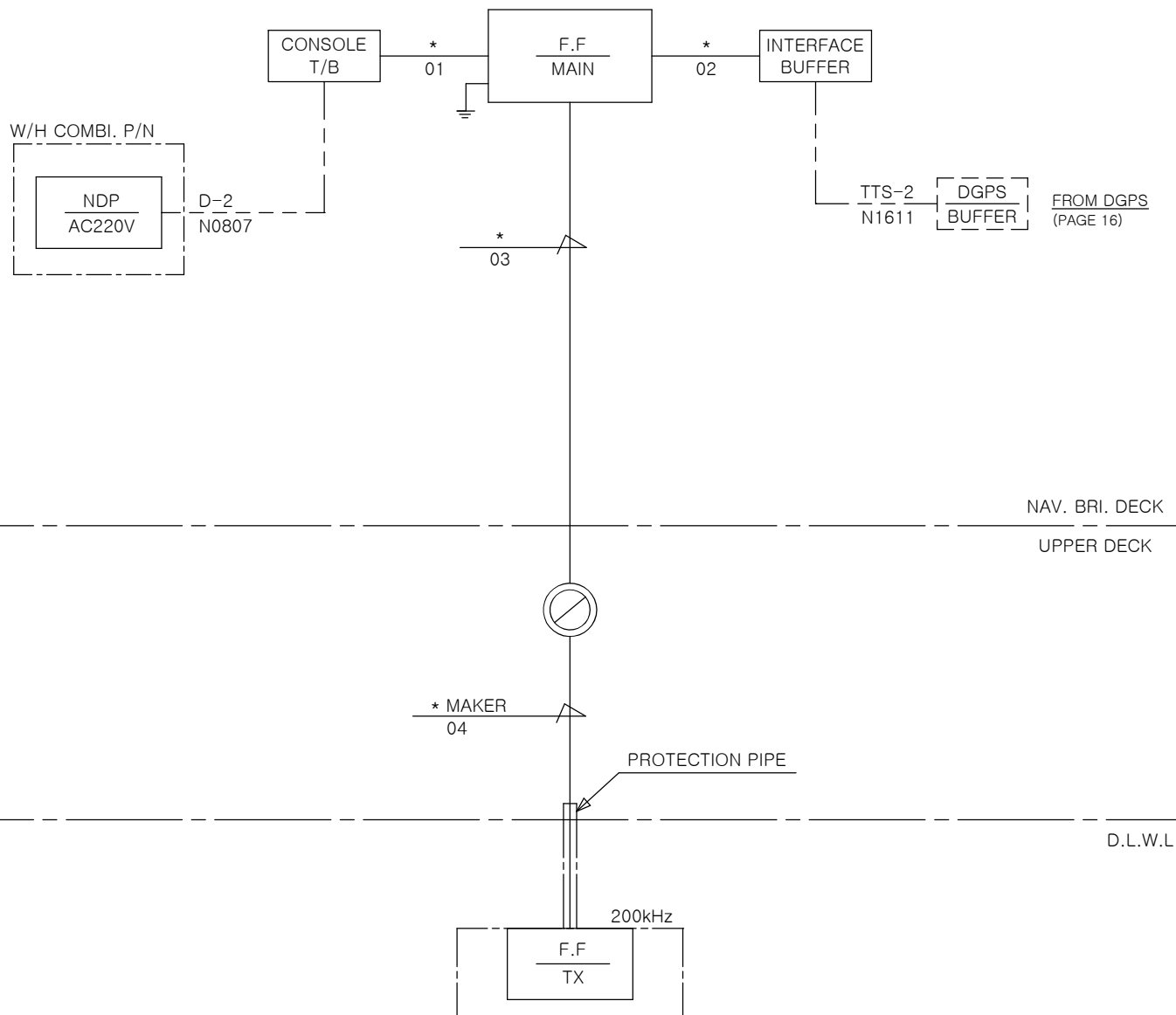
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	ECHO SOUNDER MAIN UNIT	1			JUNCTION BOX	1	
	ECHO SOUNDER TRANSDUCER UNIT	1					







* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 '*' MARK IS MAKER SUPPLIES.



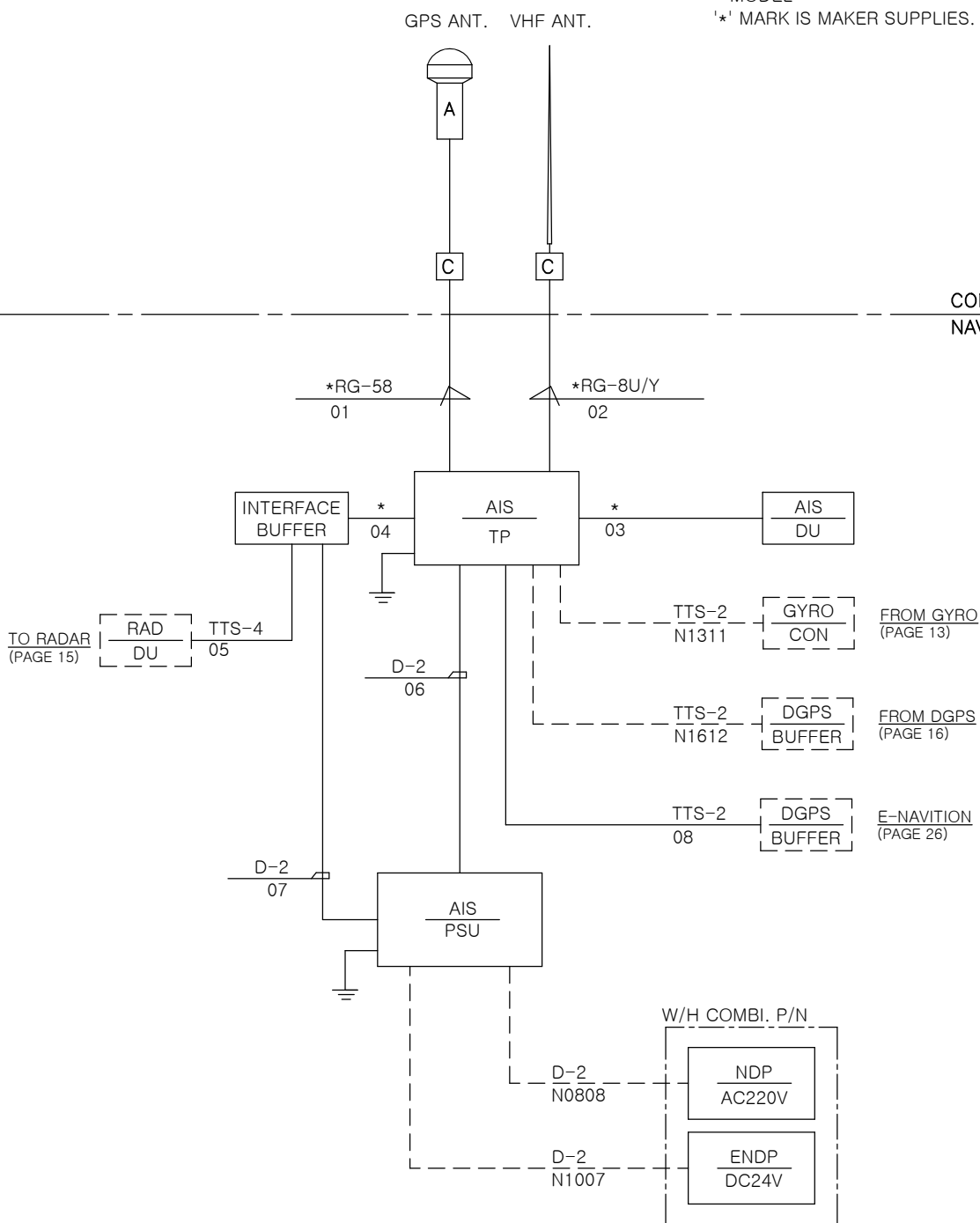
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	FISH FINDER MAIN UNIT 15" DISPLAY UNIT	1			JUNCTION BOX	1	
	FISH FINDER TRANSDUCER UNIT	1					

* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 '*' MARK IS MAKER SUPPLIES.







SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	AIS TRANSPONDER	1			AIS VHF ANTENNA	1	
	AIS DISPLAY UNIT	1			AIS GPS ANTENNA	1	
	AIS POWER SUPPLY UNIT	1			ANTENNA CONNECTOR	2	

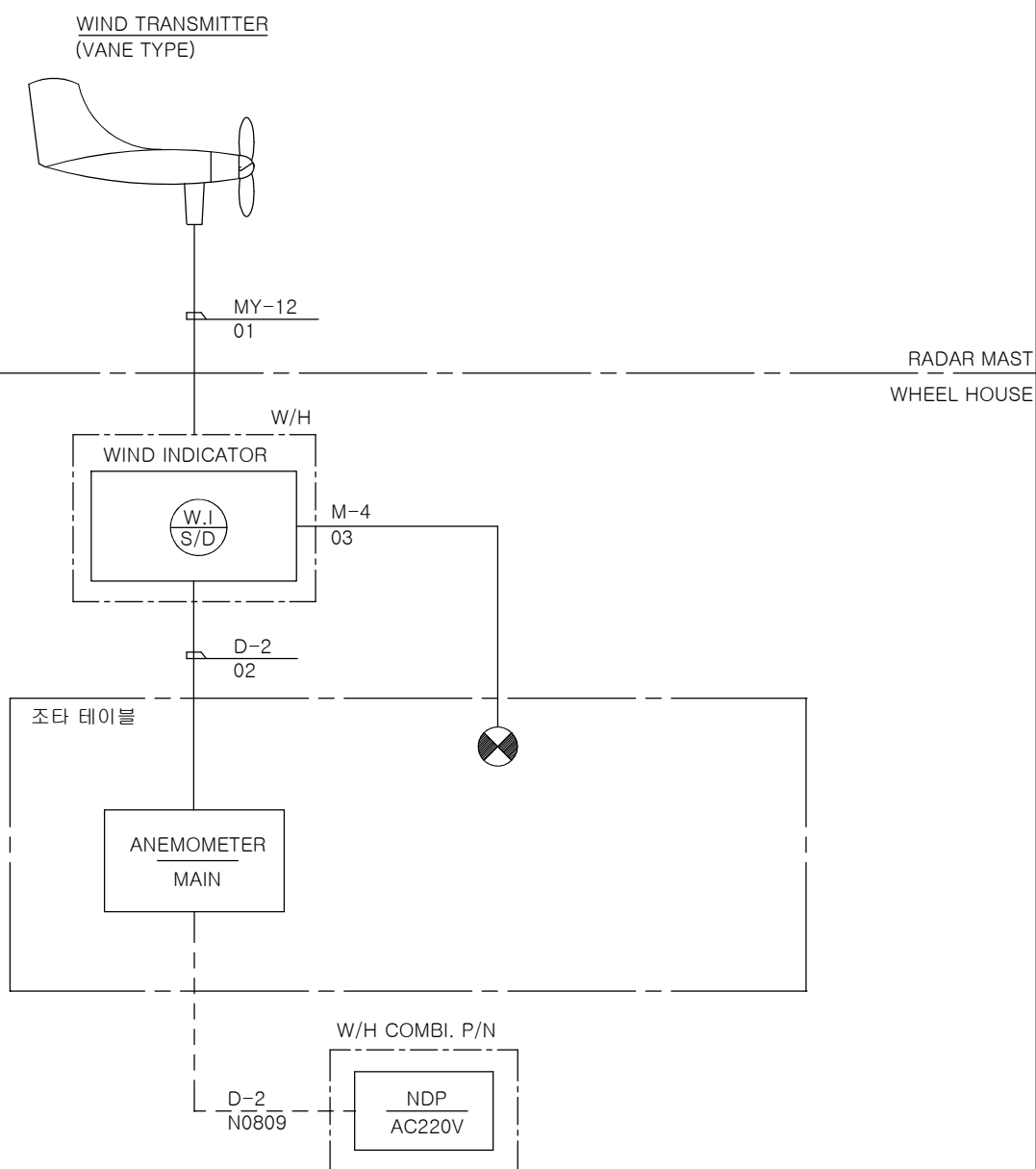
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




COMPASS DK.
NAV.BRI.DECK

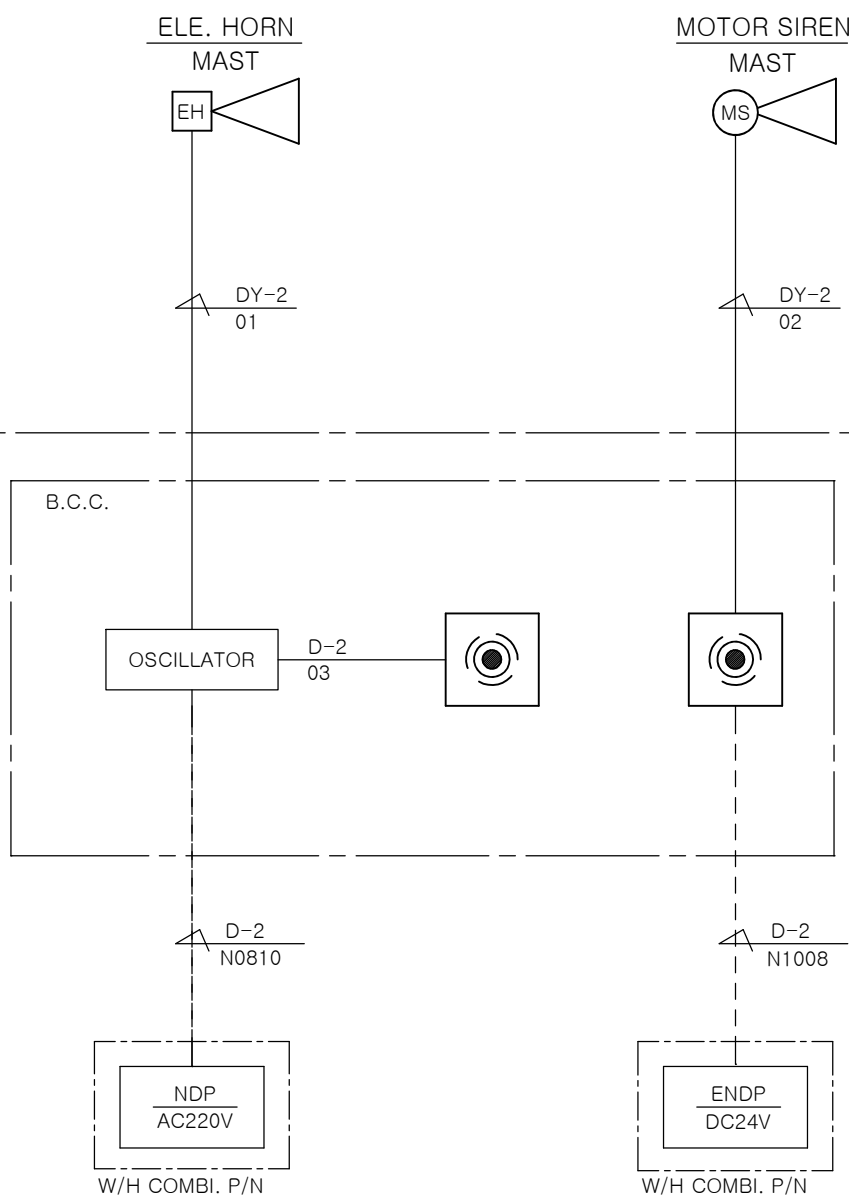
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	WIND TRANSMITTER (VANE)	1			WIND DIRECTION/SPEED INDICATOR	1	
	ANEMOMETER MAIN UNIT	1			DIMMER SWITCH	1	

* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
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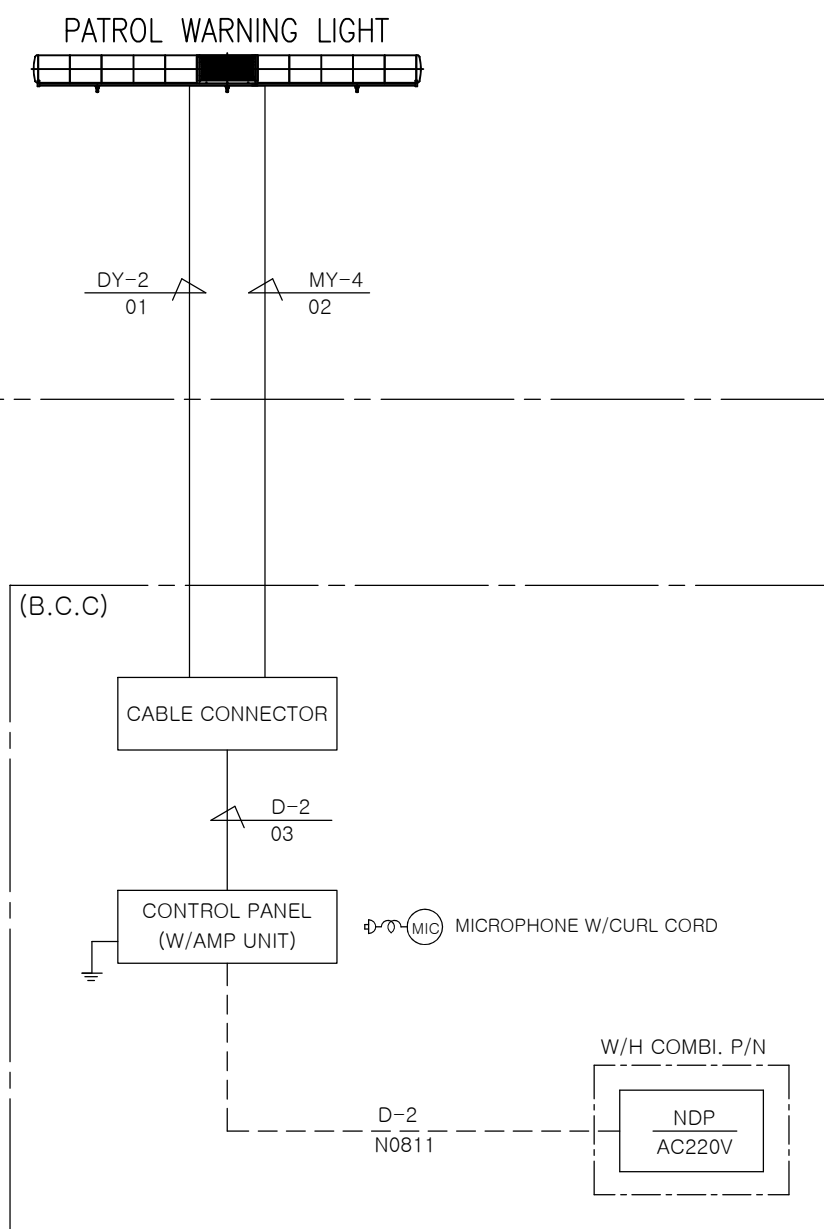


SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	ELECTRIC HORN	1			PUSH BUTTON	2	
	MOTOR SIREN	1					







* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
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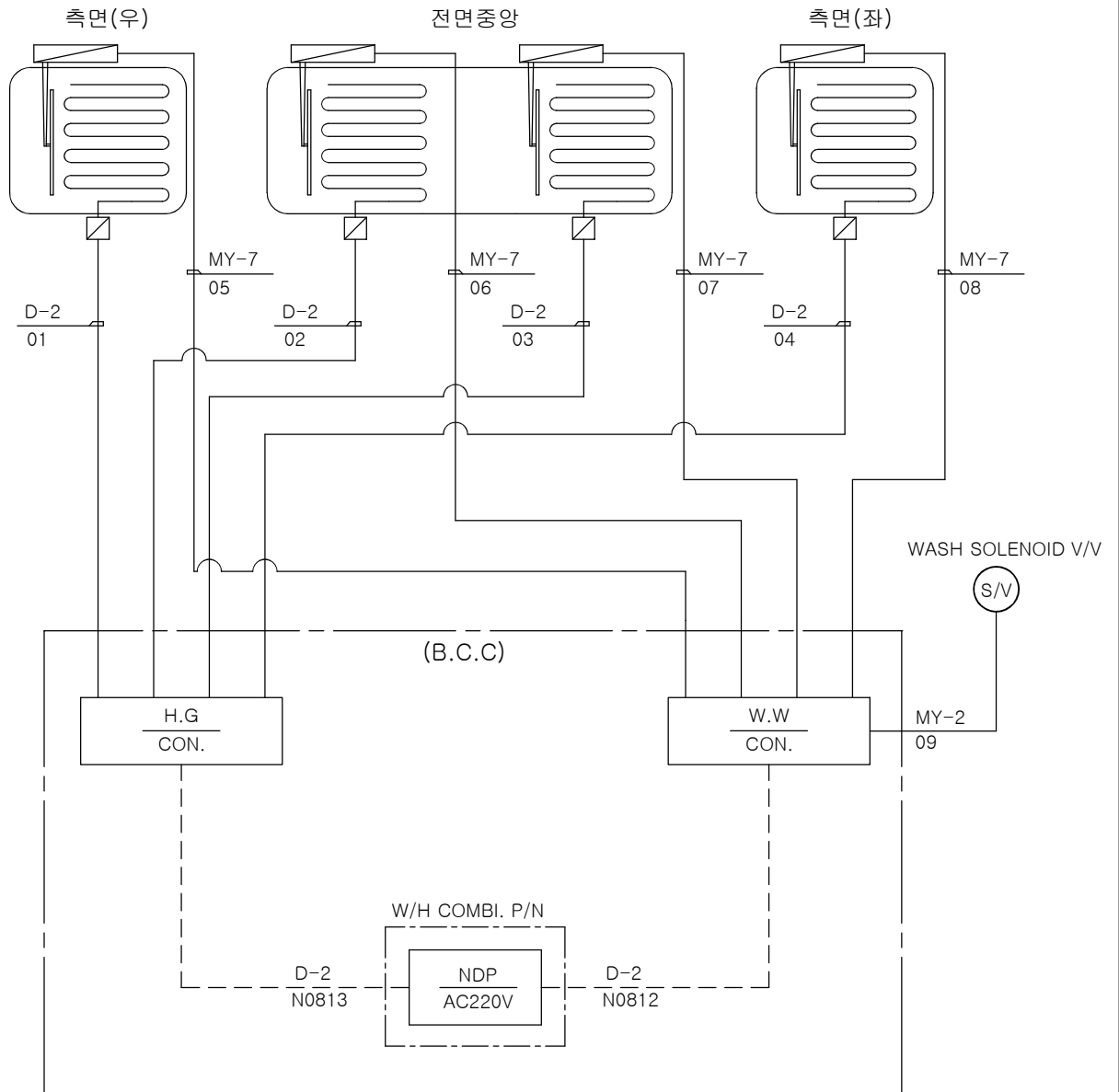
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 * MODEL :
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







W/H TOP
 NAV. BRI. DECK

SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	WINDOW WIPER CONTROLLER	1			WINDOW WIPER	4	
	HEATED GLASS CONTROLLER	1			HEATED GLASS	4	
	WASH SELENOID VALVE	1			HEATED GLASS JUNCTION BOX	4	

* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 ' * ' MARK IS MAKER SUPPLIES.

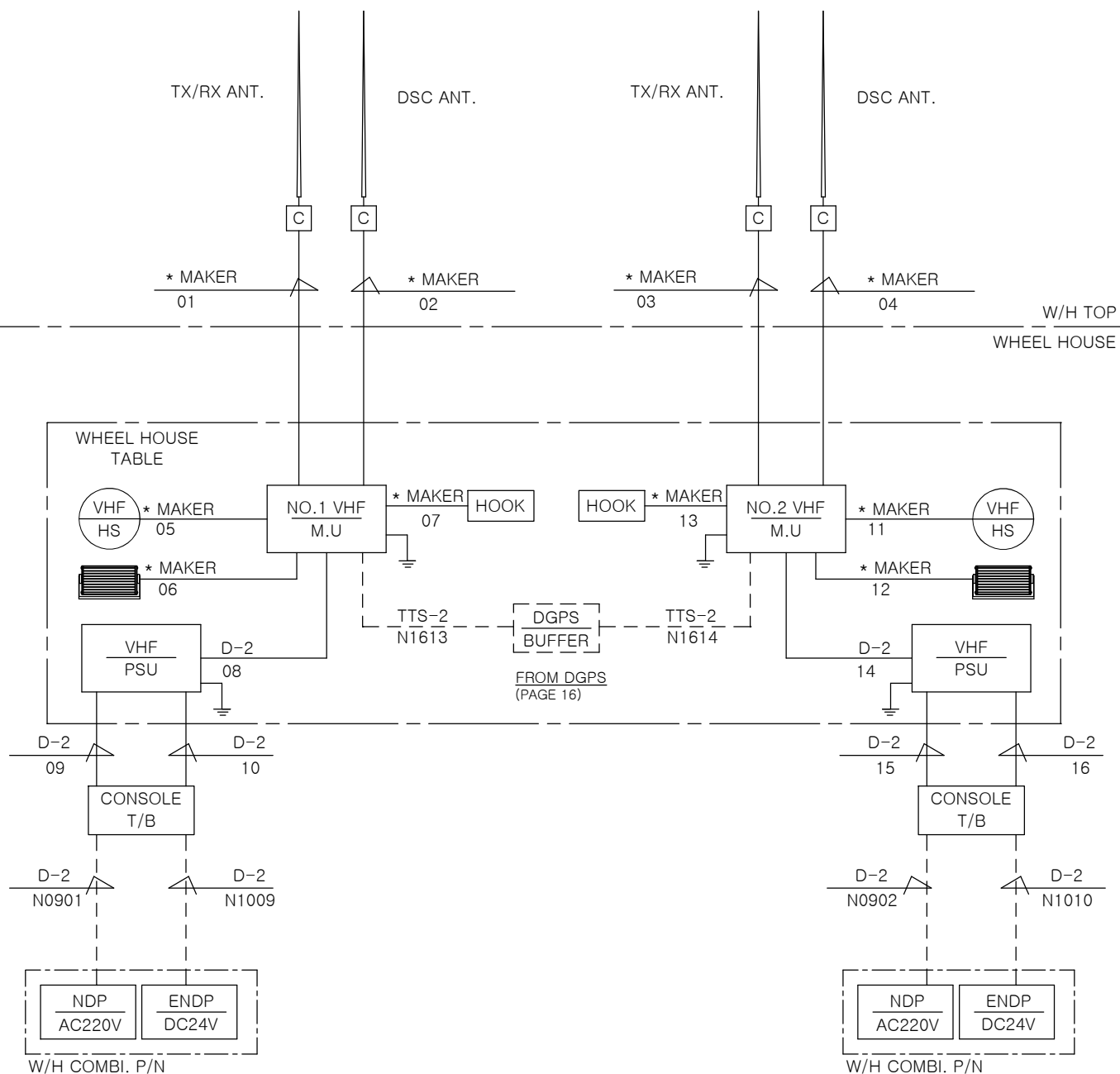







SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	MAIN UNIT	2			VHF TX/ RX/ DSC ANTENNA	4	
	HANDEST UNIT	2			ANTENNA CONNECTOR	2	
	POWER SUPPLY UNIT	2			SPERKER	2	

* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 '* MARK IS MAKER SUPPLIES.

NO.1 VHF RADIO TEL.

NO.2 VHF RADIO TEL.



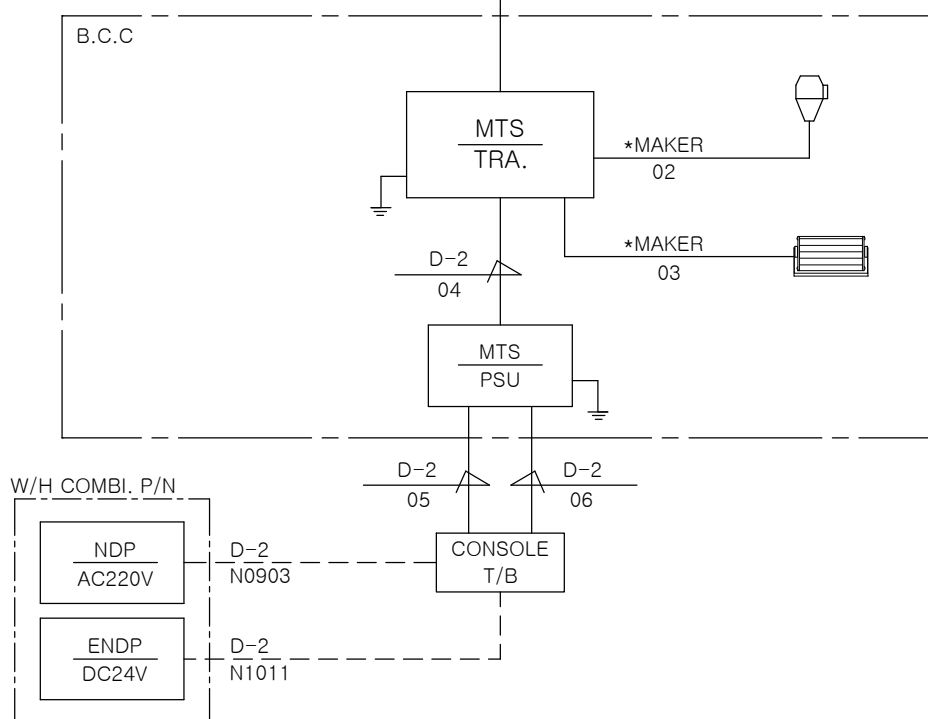
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	MTS TRANSCEIVER UNIT	1			MTS WHIP ANTENNA	1	
	MICROPHONE HANDEST UNIT	1			SPEAKER	1	
	POWER SUPPLY UNIT	1					





* 반드시 MAKER DWG. 을 참조하여 시공할 것.
 * MAKER :
 * MODEL :
 '*' MARK IS MAKER SUPPLIES.

MTS WHIP ANTENNA

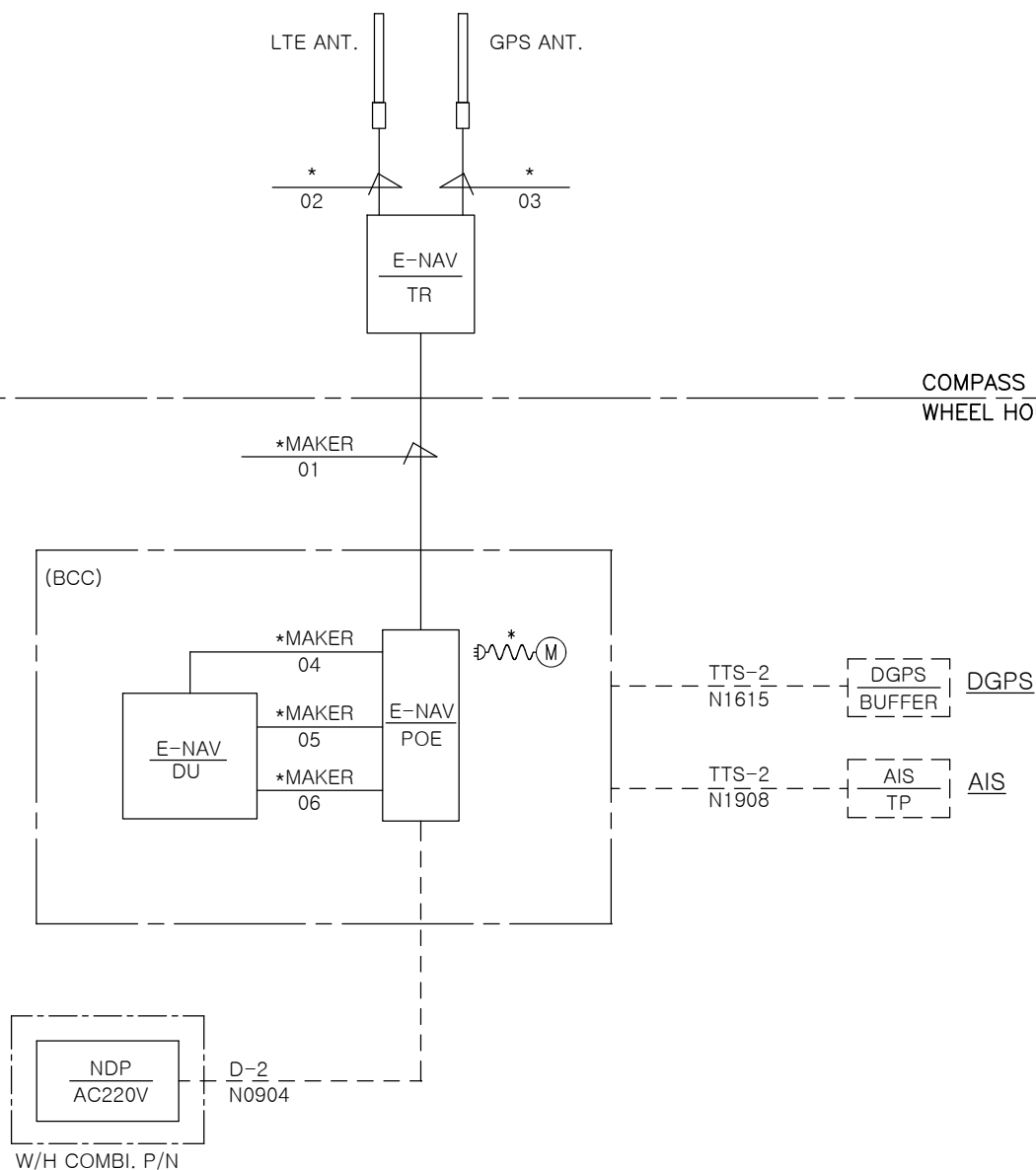
* MAKER
01

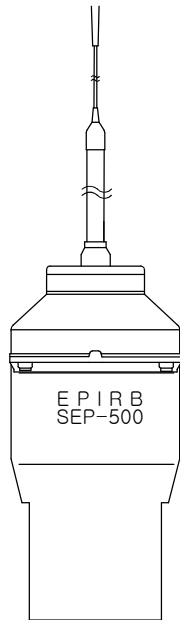
W/H TOP
WHEEL HOUSE



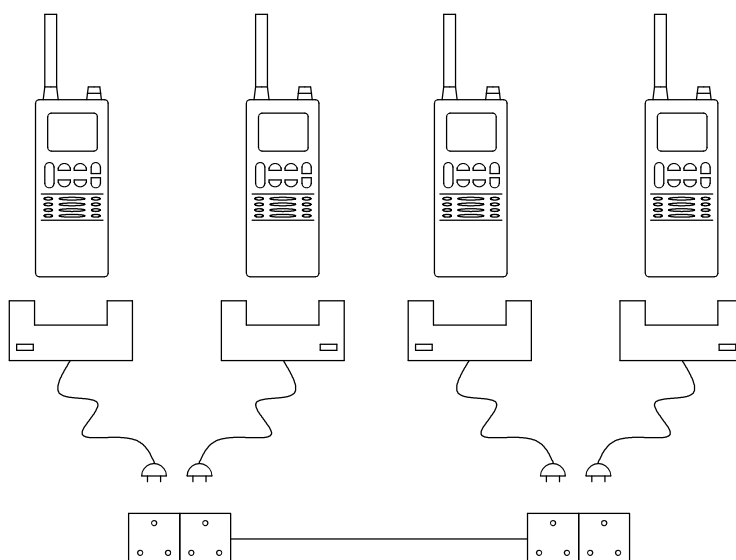
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	TRANSMIT AND RECEIVER	1			E-NAV SPOE BOX	1	
	12.1" DISPLAY UNIT, COLOR, LCD	1			LTE ANTENNA	2	






* 반드시 MAKER DWG. 을 참조하여 시공할 것.
'*' MARK IS MAKER SUPPLY.



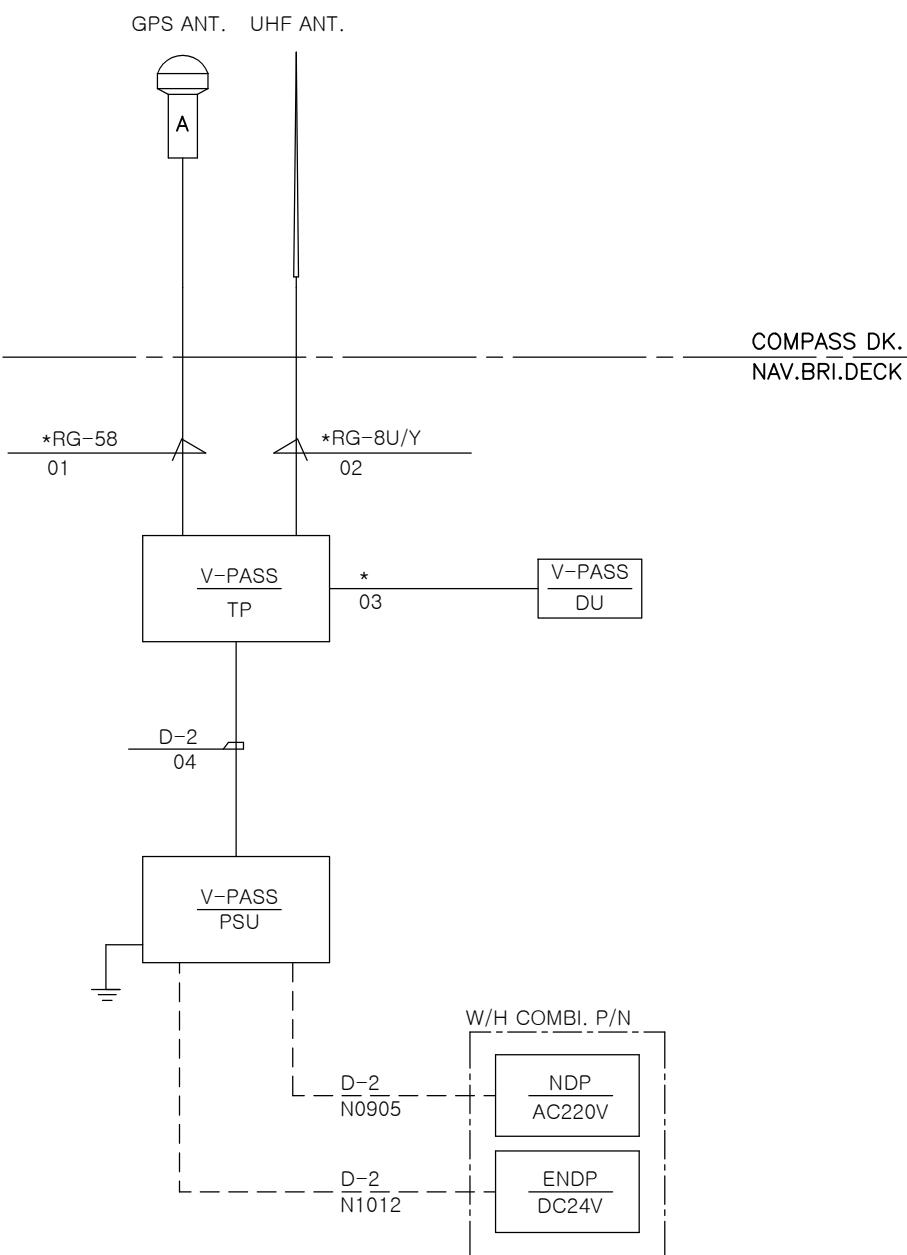










SATELLITE EPIRB	
MAKER	
MODEL	
주파수	406/121.5MHz



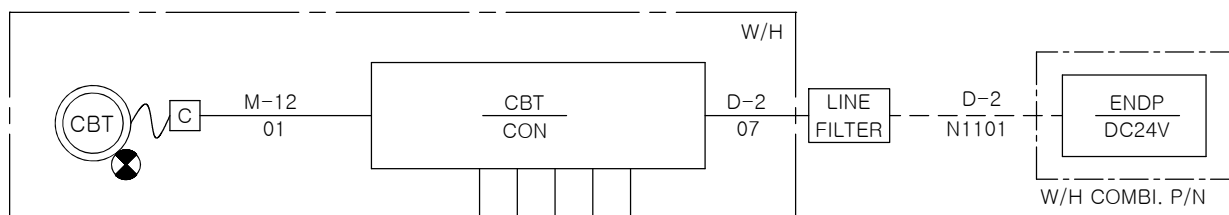
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	V-PASS TRANSPONDER	1			V-PASS UHF ANTENNA	1	
	V-PASS DISPLAY UNIT	1			V-PASS GPS ANTENNA	1	
	V-PASS POWER SUPPLY UNIT	1					

* 반드시 MAKER DWG. 을 참조하여 시공할 것.
* MAKER :
* MODEL :

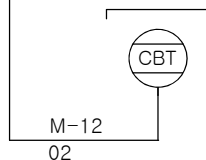


SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	COMMON BATT. TEL. (WALL MOUNT, N.W.T)	1	SLIM TYPE		COMMON BATT. TEL. (WALL MOUNT, W.T)		W/SUB. RECIVER
	COMMON BATT. TEL. (DESK MOUNT, N.W.T)	2			COMMON BATT. TEL. (WALL MOUNT, W.T)		
	COMMON BATT. TEL. (FLUSH MOUNT, N.W.T)	1	W/DIMMER SWITCH		200Ø ELEC. BELL	2	
	COMMON BATT. TEL. (WALL MOUNT W/HAND - SET W.T)	2			CONNECTION BOX	1	

* 반드시 MAKER DWG. 을 참조하여 시공할 것.



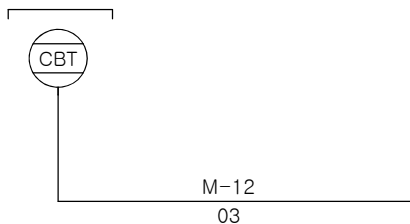
INSPEC & CAPT' R/M



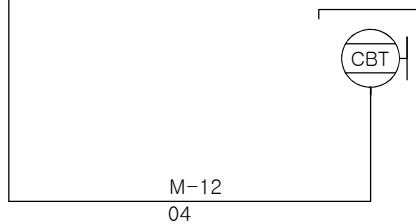
NAV. BRI. DECK

UPPER DECK

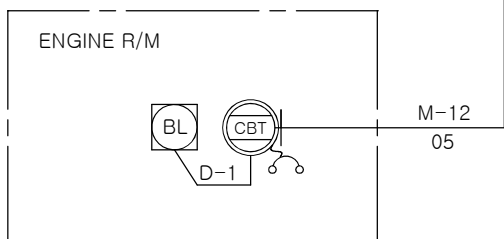
회의실



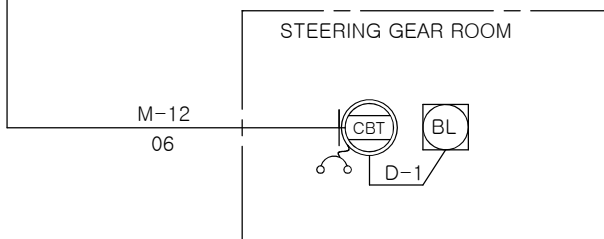
MESS RM












ENGINE R/M

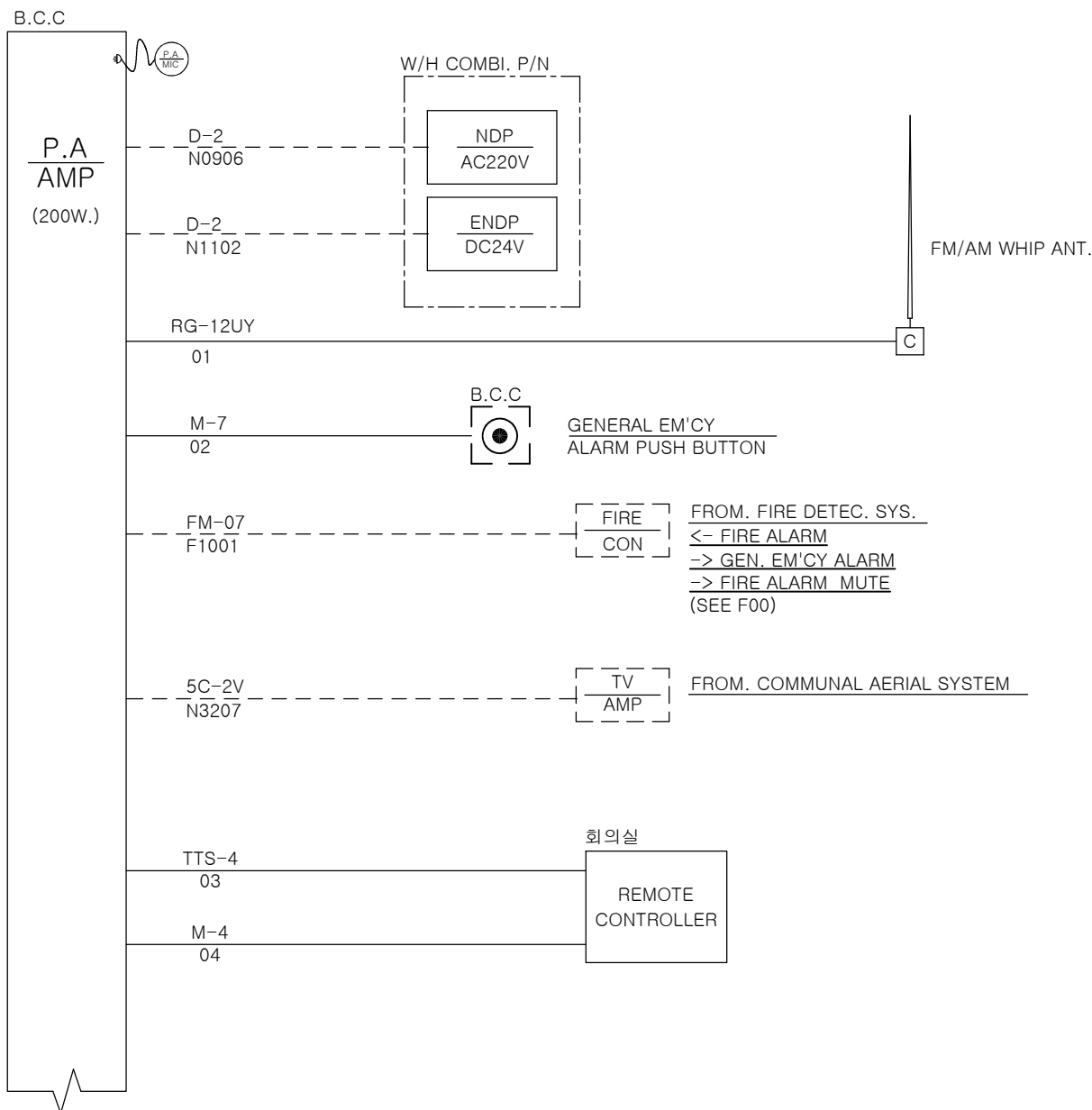


STEERING GEAR ROOM

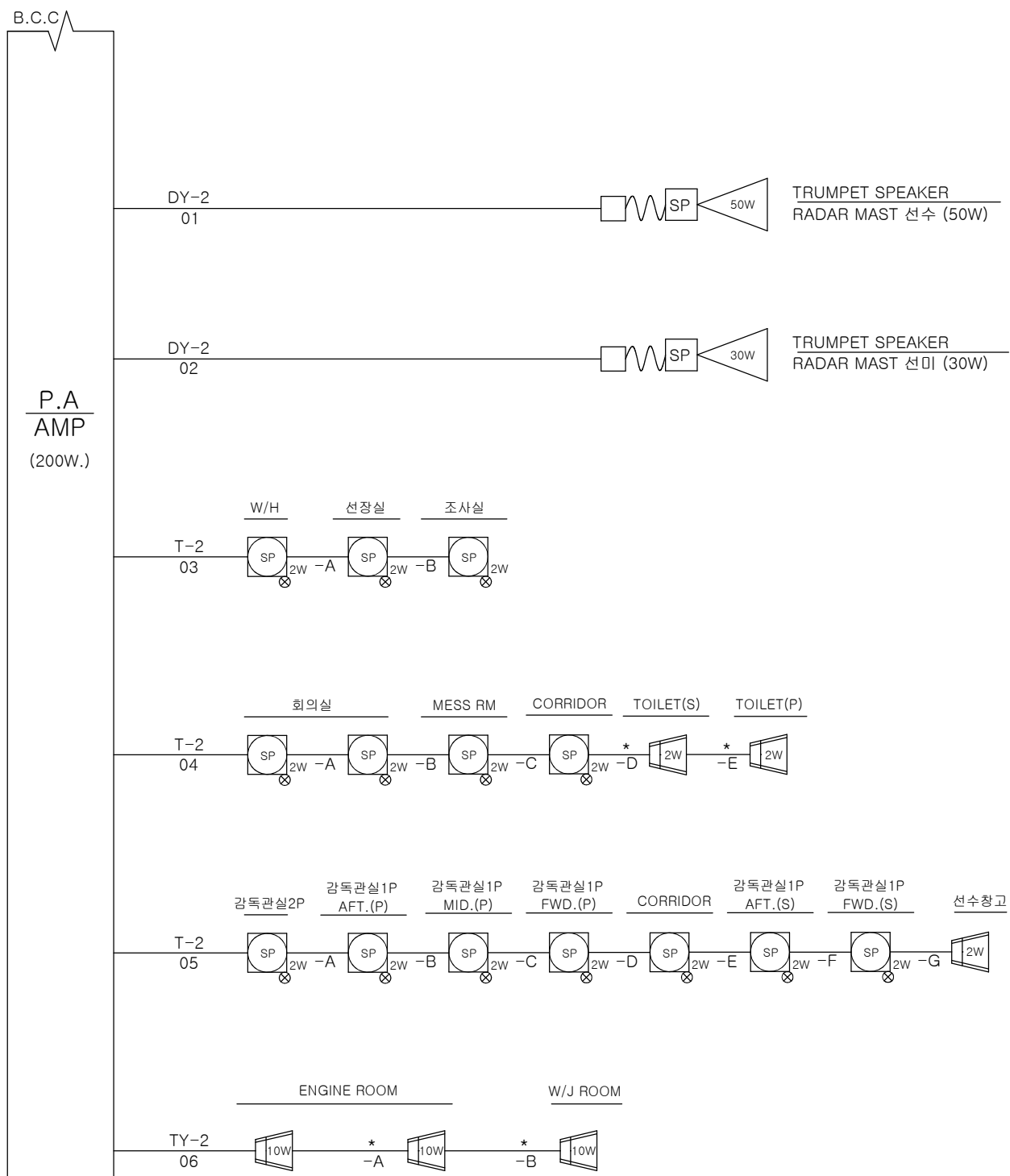


SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	50W W.T TRUMPET TYPE SPEAKER	1			VHF TX/ RX/ DSC ANTENNA	1	200W
	30W W.T TRUMPET TYPE SPEAKER	1			MICROPHONE	1	W/CUAL CORD
	W.T 10W SPEAKER	3			5W SPEAKER W.T	1	
	N.W.T 2W CABIN SPEAKER FLUSH TYPE				W.T 2W CABIN SPEAKER FLUSH TYPE	3	W/VOLUME
	N.W.T 2W CABIN SPEAKER FLUSH TYPE	10	W/VOLUME				





* 반드시 MAKER DWG. 을 참조하여 시공할 것.



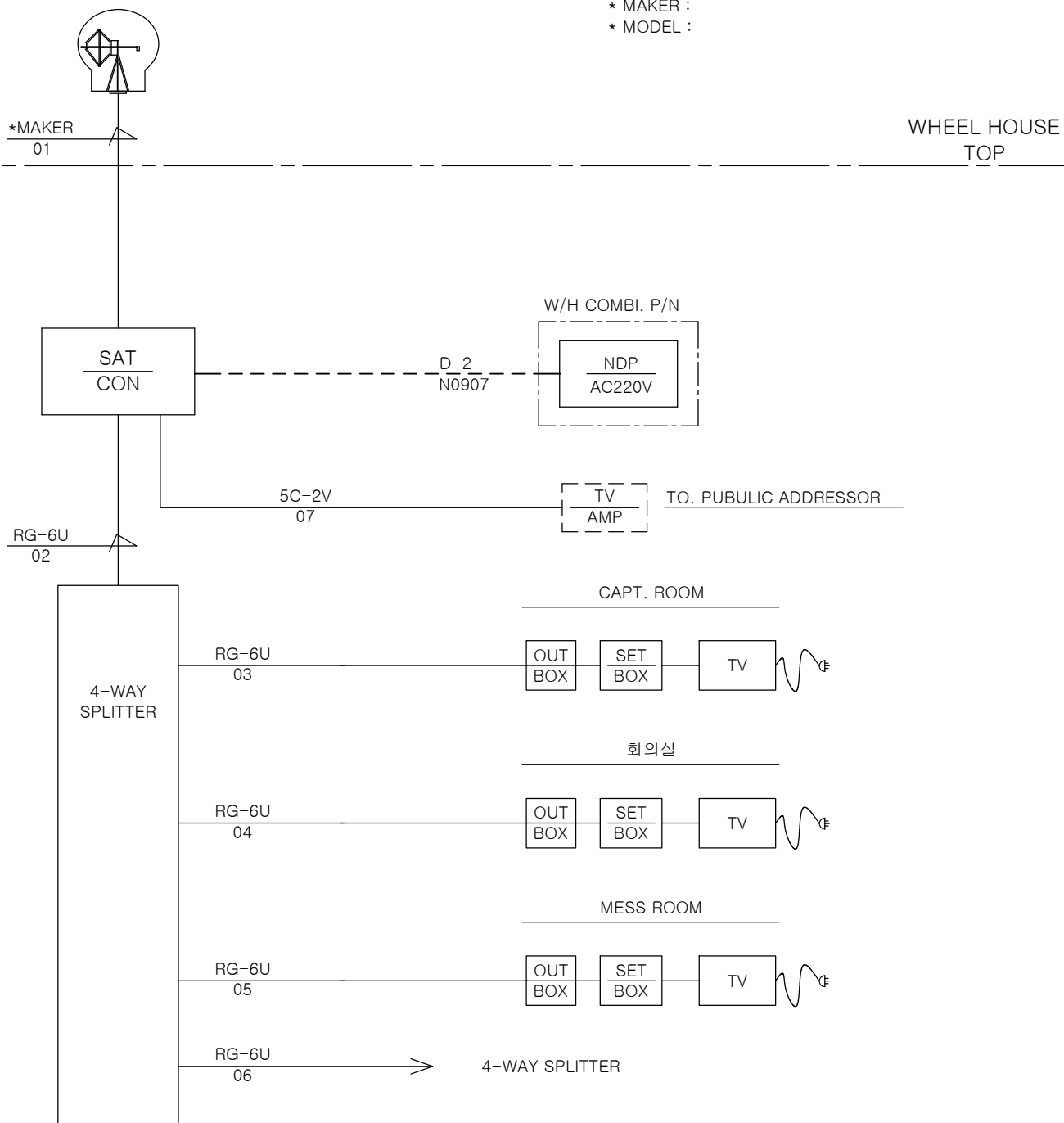
ALL CABLES ARE TPYC-1.5 UNLESS OTHERWISE NOTED
 "*" MARKED CABLES ARE TPYCY-1.5

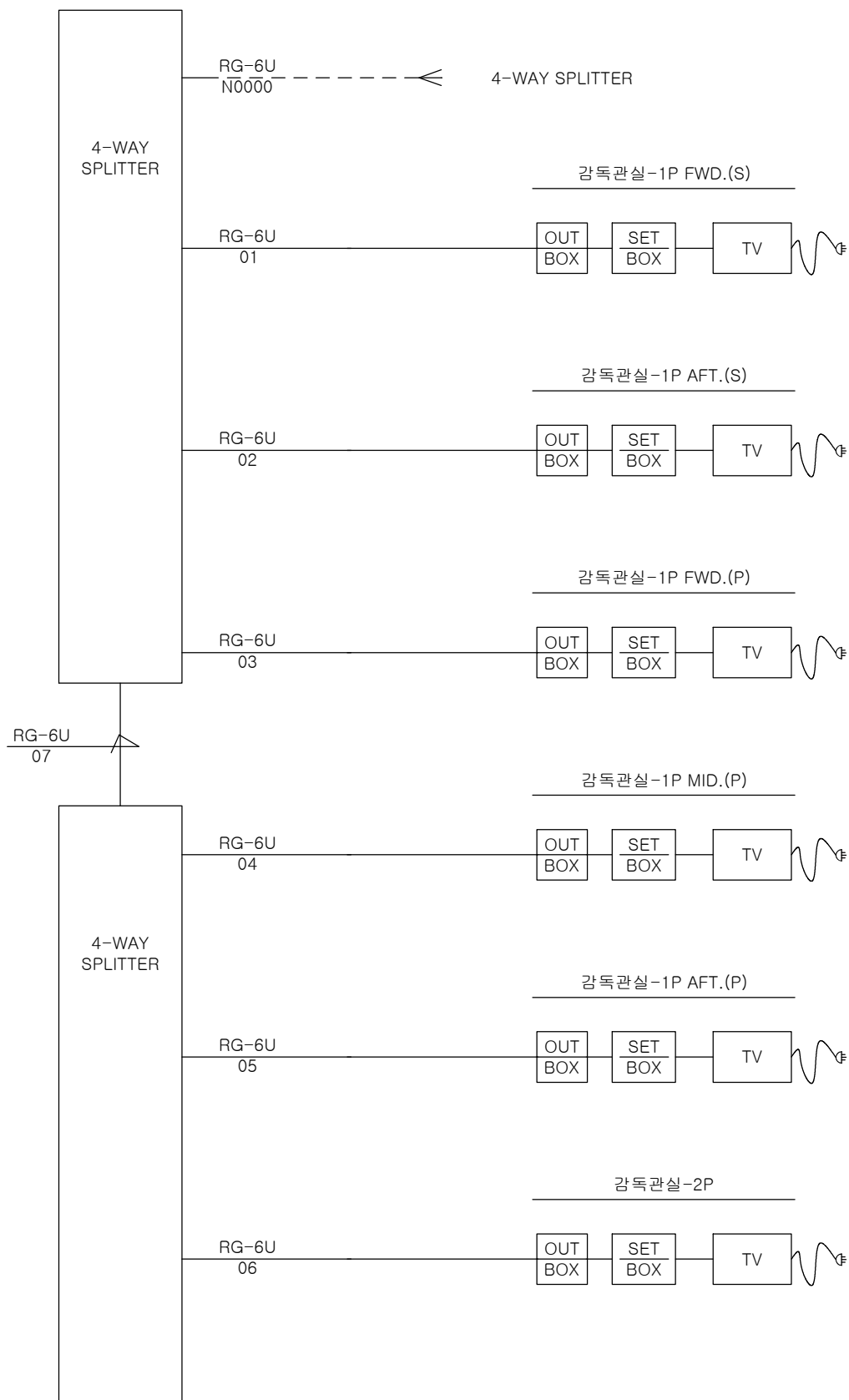






ALL CABLES ARE TPYC-1.5 UNLESS OTHERWISE NOTED
 "*" MARKED CABLES ARE TPYCY-1.5

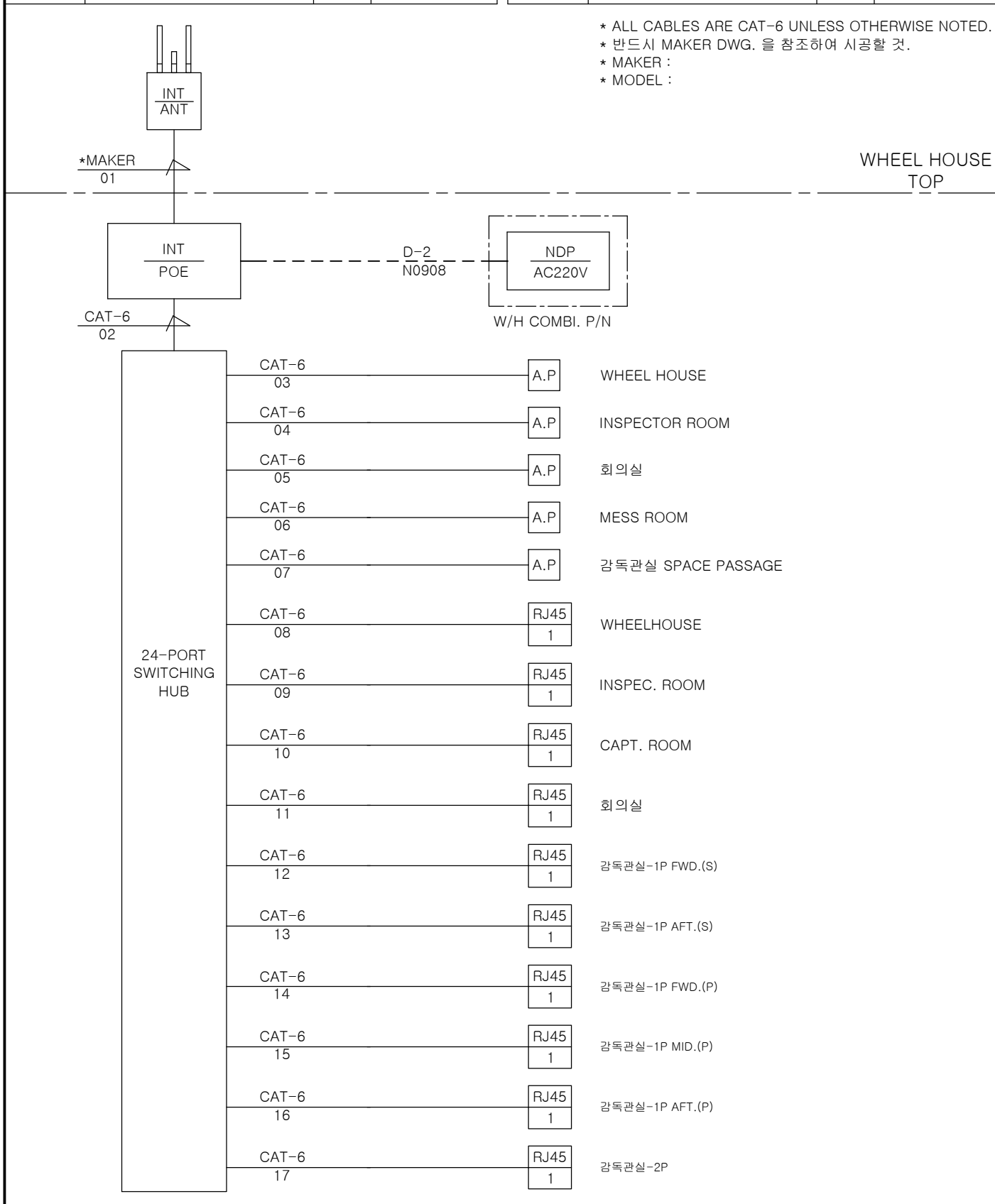
SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	SAT. TV. ANTENNA	1	W/VOLUM		TV OUTLET BOX	9	
	COMMUNAL AERIAL SYSTEM CONTROLLER	1			SET TOP BOX	9	




- * ALL CABLES ARE RG-6U UNLESS OTHERWISE NOTED.
- * 반드시 MAKER DWG. 을 참조하여 시공할 것.
- * MAKER :
- * MODEL :





SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	INTERNET LTE ANTENNA	1	W/VOLUM		ACCESS POINT	5	
	INTERNET POE BOX	1			RJ45 OUTLET BOX	10	



SYMB.	DESCRIPTION	Q'TY	REMARK	SYMB.	DESCRIPTION	Q'TY	REMARK
	W.T EXTERNAL CAMERA	6			W.T DOME TYPE CCTV CAMERA	4	
	N.W.T DOME TYPE CCTV CAMERA	2					

