FURUNO NAVNET QUICK REFERENCE

Match text color to box color for more information

1

BBWGPS (# see page 2 for WAAS setup)
Configure using [MENU] settings:
[SYSTEM CONFIGURATION]
[NAV OPTION]
[NAV SOURCE SETTINGS]
POSITION SOURCE
[FURUNO BB GPS]***
[SYSTEM SETUP]
PORT SETUP
GPS/NMEA PORT
FURUNO GPS SENSOR **[YES]** ****
Antenna requires all wire connections for this configuration (proprietary output)
Note: NMEA output when not configured

DATA 1
^ highest priority when BBWGPS configured

* **BBWGPS** antenna

DATA 1

* PG1000 Heading Sensor

DATA 2/3(see table)

network port

NavNet display

(+) AD 10 format required for ARP11and overlay NMEA heading (overlay only) see page 2 (?)

2

@ BBFF1 or BBFF3 Network Sounder

000-144-422, 5m (BBFF1 supplied)

* **optional device**

3
Minimum configuration settings:

IMPORTANT NOTES:

A. Connect and configure a **single** NavNet display, BBFF1(if used) and any required equipment before adding additional network components, displays and/or network hub.
B. Follow steps in order, omitting only if not required for different equipment configurations.
C. Confirm **no simulator modes** are selected (**[SIM]** would be displayed in upper left corner) .

Confirm Network settings using [**INSTALLATION SETUP**]**
[NETWORK SETUP] **(for a multiple display system IPADDRESS and HOST NAME must be different for each)**
IP ADDRESS **(see chart)** "only change if duplicate IP addresses are on networked displays".
HOST NAME **(see chart)** "only change if duplicate Host names are on networked displays".
RADAR SOURCE (typically **RADAR** or rename to **radar displays "host name"** as required for all displays using the radar source). This will default to **[RADAR]** if display is reset.
CHART SOURCE (input all display **[HOST NAMES]** on the network omitting own displays HOST NAME.
SOUNDER SOURCE (see **BBFF1** section). This will default to **[SOUNDER]** if display is reset.
SUBNET MASK **[255.255.000.000]** (**do not change, devices on the network will become unusable**)
GATEWAY ADDRESS **[000.000.000.000] (do not change,devices on the network will become unusable)**
OFFSET PORT NUMBER **[10000] (do not change, devices on the network will become unusable)**

[RADAR SETUP] **REQUIRED ADJUSTMENTS! (Radar only)** **Transmit radar 5 minutes before adjusting!**
ANTENNA TYPE
A 1722 / 1722C / 1823C
B 1732 / 1732C / 1833 / 1833C
C 1742 / 1742C
F 1762 / 1762C / 1933 / 1933C
G 1943 / 1943C
H 1953/C
ANTENNA ROTATION [**ROTATE**] (**do not change**)
[TRANSMIT RADAR FOR FOLLOWING PROCEDURES (on the shortest range, set gain & sea control properly)]
TUNING [**OFF**] Press [**EDIT**], select [**ON**], Press [**ENTER**], when complete **"NOW TUNING"** disappears.
TIMING ADJUST [**OFF**] Press [**EDIT**], select [**ON**], visually select long straight target, rotate knob to straighten target, Press [**ENTER**].
VIDEO ADJUST(1833-19X3 / C) select [**ON**], press [**ENTER**], when complete **"NOW ADJUSTING VIDEO"**disappears.
HEADING ADJUST **(NOTE: factory setting 180° out for dome antennas)** select [NEXT PAGE], HEADING ADJUST [**OFF**], Press [**EDIT**], select [**ON**], using a range between 0.125-.25nm, rotate knob to bisect radar target, Press [**SET**]

[**BBFF3**] (if installed) setup before BBFF1, set **[Host Name]** switch to **[0]** [SOUNDER], configure then select **[1]** [SOUNDER1] if a two sounder network using a BBFF1 and BBFF3 are installed
[**BBFF1**] Check configuration using [**INSTALLATION SETUP**] **
[NETWORK SETUP] confirm (**do not change**)
SOUNDER SOURCE **[SOUNDER]**
(only remove SOUNDER SOURCE name if not connected to system)
[NETWORK SOUNDER SETUP] confirm (**do not change**)
IP ADDRESS **[172.031.092.001]**
HOST NAME **[SOUNDER]**
NOTE: Display writes any changed information to the BBFF1network card for retention.

Displaying digital temperature and depth on NavNet display(s), (using BBFF1 as source)
Configure using [MENU] (default setting is NMEA for an external source)
[SYSTEM CONFIGURATION]
[GENERAL SETUP] (use [NMEA] to display input from external depth / temperature devices)
TEMPERATURE SOURCE **[ETR]** (transducers with temperature sensor only)
DEPTH SOURCE **[ETR]**

MODEL	IP ADDRESS	alternate	HOST NAME	alternate
1722/1732/1742/1762	172.031.003.004	172.031.003.006	RADAR	RADAR1
1722C/1732C/1742C/1762C	172.031.003.001	172.031.003.007	RADAR	RADAR2
1833/1933/1943	172.031.003.002	172.031.003.008	RADAR	RADAR3
1833C/1933C/1943C/1953C	172.031.003.003	172.031.003.009	RADAR	RADAR4
GP-1700	172.031.014.002	172.031.014.010	PLOTTER	PLOTTER1
GP-1700C	172.031.014.001	172.031.014.011	PLOTTER	PLOTTER2
GP-1900C	172.031.003.005	172.031.003.012	PLOTTER	PLOTTER3
BBFF1	172.031.092.001	Do not change	SOUNDER	Do not change

Notes:

[NavNet reset procedures on page 2]

Maximum of 4 displays plus additional network components in NavNet network.
[HOST NAME] and [IP ADDRESS] must be different for each NavNet component on network.
** **INSTALLATION SETUP access:** With display off, hold **[MENU]** (~5 sec.), while pressing **[POWER/BRILL]** to power on, access using [MENU], [SYSTEM CONFIGURATION], [INSTALLATION SETUP].
*** NAV SOURCE SETTINGS **(not using BBWGPS requires external navigation data)** POSITION SOURCE [ALL] or [GPS].
**** GPS/NMEA PORT **(not using BBWGPS requires external navigation data)** FURUNO GPS SENSOR [NO]. see page 2 option 1(use if no BBGPS installed), option 2 is used for redundancy, (option 1and 2 can be combined, option 1 is priority (using primary displays output through network).
HEADING (AD10 Format, 25ms.) or [NMEA level (no ARPA), heading] input via DATA 2 or 3 (see Port chart) **required for radar/chart overlay**, heading into **radar unit only** for distribution across network.
HEADING required for radar waypoint mark (lollipop) and target Latitude / Longitude.
Input **NMEA heading** into heading port (see Port chart) using pins 1 and 2 (white and black).
Power off displays and/or BBFF3 after changing configuration settings then reapply power.

PORT CONFIGURATIONS (NAVNET DISPLAYS)

7" and 10" CRT Display	Port	Priority	10.4" Display
BBWGPS or NMEA IN/OUT	DATA 1	LOW ^see step 1	BBWGPS or NMEA IN/OUT
HEADING (AD10 or NMEA format)	DATA 2	MED (10.4")	NMEA IN / OUT
NMEA IN / OUT, BUZZER, PC	DATA 3	HIGH (7&10")	HEADING (AD10 or NMEA)
N/A	DATA 4	HIGH (10.4")	NMEA I/O, BUZZER, PC
NETWORK PORT	NETWORK	HIGHEST	NETWORK PORT

NOTE :
7" **PLOTTER** DISPLAY **DATA2** configuration is NMEA IN/OUT

Furuno, USA				
	SIZE	FSCM NO	Drawing Name	REV
DRAWN GP	STD		NavNet Quick Reference	25
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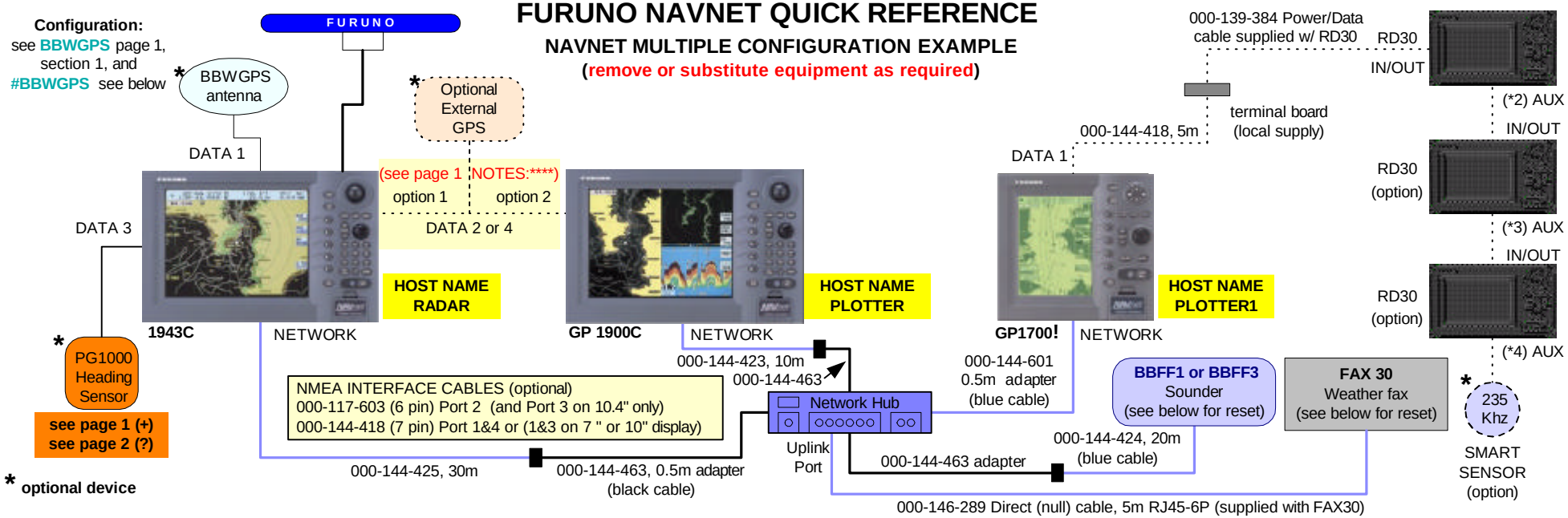
FURUNO NAVNET QUICK REFERENCE

NAVNET MULTIPLE CONFIGURATION EXAMPLE

(remove or substitute equipment as required)



Configuration: (Primary Display) Use NavNet Quick Reference (page 1)	Check network configuration (change IP and HOST NAME as required)	Check network configuration (change IP and HOST NAME as required)	RD 30 example : (shown in maximum configuration)
NETWORK SETUP **IP ADDRESS 172.031.003.003** (no change required) **HOST NAME** [**RADAR**] (no change required) RADAR SOURCE [**RADAR**] CHART SOURCE (omit own name) [**PLOTTER**] [**PLOTTER1**] [additional display **HOST NAME** SOUNDER SOURCE [**SOUNDER**] AUX SOURCE [**WXFAX**] **Caution: See NOTES: 8** **OUTPUT THROUGH NETWORK Port settings** **Required sentences GGA, VTG, ZDA (HDG if NMEA heading)**	NETWORK SETUP **IP ADDRESS 172.031.003.005** **HOST NAME** [**PLOTTER**] RADAR SOURCE [**RADAR**] CHART SOURCE (omit own name) [**RADAR**] [**PLOTTER1**] [additional display **HOST NAME**] SOUNDER SOURCE [**SOUNDER**] AUX SOURCE [**WXFAX**] **Caution: See NOTES: 8** **OUTPUT THROUGH NETWORK Port settings** **GGA, VTG, ZDA** with **option 2** connected and **only** if **BBWGPS** is connected **and** configured to the **primary display.**	NETWORK SETUP **IP ADDRESS 172.031.014.002** **HOST NAME** [**PLOTTER1**] RADAR SOURCE [**RADAR**] CHART SOURCE (omit own name) [**RADAR**] [**PLOTTER**] [additional display **HOST NAME**] SOUNDER SOURCE [**SOUNDER**] **NOTES:** HOST NAME change AUX SOURCE (available only on 10.4") **Caution: See NOTES: 8** **OUTPUT THROUGH NETWORK settings** **DPT, MTW** using (optional) external NMEA input (example RD30) connected to display for depth and temperature over network (see *BBFF1) **! No overlay on any monochrome display**	**RD 30 supply voltage** use **DATA 1** port or **external 12 volt** source **.** Alternate connection: (DATA 3 or 4 (see chart on page 1) using alternate wiring shown on **NavNet** [PORT SETUP] DATA3 or 4 display screen. NOTES: **1.** Only enable **DATA1, 3 or 4** NMEA sentences required for RD30 display(s) **2. GTD** required for **Loran display** **3. AUX PORT** has **priority** over IN/OUT PORTwith duplicate simultaneous input sentences. **4. Input data speed** 430 characters per second maximum. ***2** 300mA max. output current ***3** 180mA max. output current ***4** 60mA max. output current

(?) HEADING SENSOR(connect to radar only)

SHIPS HEADING SOURCE	RADAR SETUP** [HEADING DATA]
PG1000 (with L/ L data)	TRUE
(w/o L/ L data)	MAGNETIC
AD10 with **True heading**	TRUE

WARNING! CLEARING RADAR SETTINGS see NOTES: 2
1. Select [MEMORY CLEAR], clear all (display,GPS, sounder)
2. Power off, Power on accessing [INSTALLATION MENU**]
3.Press[MENU][SYSTEMCONFIGURATION],[INSTALLATION SETUP],[RADAR SETUP],[NEXT PAGE], press **[CLEAR] X5** while holding **"fourth"** softkey.

NOTES:

1. To **clear memory** [MENU SETTINGS] : Press and hold **[CLEAR]** while powering on (**will not** clear radar or network settings).
2. To **clear/ reset** [RADAR and SOUNDER SOURCE]: Press and hold **[ALARM]** while powering on (**will not** clear radar or network settings).
3. Clearing all RADAR memory (see above warning and information). **IMPORTANT:** [HOST NAME] and[RADAR SOURCE] must be the same.
4. Network sounder powers off ~ 3 minutes after **last** NavNet display is powered off.
5. Change only last three digits of any **IP ADDRESS** as required for a particular network configuration.
6. ARP11 (installs in 10" or 10.4" radar displays only), change **all** network displays to [**INTERNAL ARP**] for **ARP** operations.
7. Count down by-pass: Select **RADAR MODE(press POWER/BRILL key)**, press and hold **"fourth" (STBY/TX)** softkey, press **[ENT] X5**.
8. OUTPUT THROUGH NETWORK: GGA, VTG, ZDA required on display with GPS device connected (use only once in network). **EXCEPTION:** If **BBWGPS** is used, **GGA, VTG, ZDA** can be used on **one** other display with external redundant GPS connected. (Improper setup = position lockups).
9. Erasing BBFF3 transducer settings: Remove cover, press and hold **S1(TDCLR)** on CPU, power on, release S1 when TX/STBY flashes slowly.

 # BBWGPS setup: Requires software version C-Map 9 & Navionics 13 or higher (also corrects possible GPS drop out); Press [MENU], [SYSTEM CONFIGURATION], [NAV OPTION], [GPS SENSOR SETTINGS] Press [WAAS SETUP], [WAAS MODE], select [**ON**](default setting is off)

@ Sounder Reset:(**BBFF1**) Remove power & cover, locate J8, jumper pins 7&8 while reapplying power, confirm LED blinking (~5/per second), remove power, remove J8 jumper, reassemble, reapply power.
(**BBFF3**) Jumper J9 pins 5 & 6, and follow above instructions

FAX30 Reset: Remove power and cover, Set S1, #1 [on], Power on FAX30 and NavNet display, confirm FAX30 LED flashing, Power off FAX30 and NavNet display, Set S1, #1 [OFF], replace cover.

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