

Product: Decca BridgeMaster E Series Radars

Subject: Unit Type Numbers and Labels

As more and more new units and configurations have appeared in the BridgeMaster E range of radars, their type numbers and labels have also been changed or added.

This document will identify all current unit types and labels.

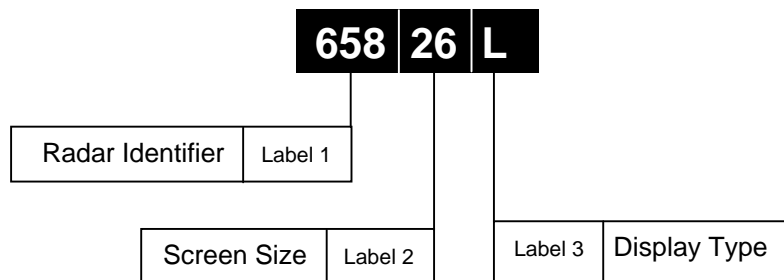
Unit Type Numbers

A BridgeMaster E Radar System is configured from among the following unit types:

- Monitor Unit
- Processor Electronics Unit
- Antenna Unit
- Turning Unit (with or without Integral Transceiver)
- Bulkhead Transceiver Unit
- Scanner Control Unit (S-Band)
- Interswitch Unit
- Interface Unit

Monitor Unit

The Monitor Unit type number consists of a five-figure number (e.g. 65826) followed by a single letter suffix (e.g. L). A typical complete Monitor Unit Type Number may therefore be: 65826L. A further breakdown of the number is as follows.



Monitor Unit label

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Label 1 **BridgeMaster E Identifier**

Fixed as **658**

Label 2 **Screen Size**

Label	Diagonal
14	14" (180 CRT)
15	15.1" or 15.4" (180 FPD)
17	18.1" or 19.0" (250 FPD)
19	20.1" (250 FPD)
21	21" (250 CRT)
23	23.1" (340 FPD)
26	29" (340 CRT)

Label 3 **Monitor Type**

Label	Monitor Series	Mounting*	Resolution	Buffered Video O/P	Mains Input [†]
A	180/250/340 FPD	Kit	High	Yes	AC
B	340 FPD	Desk	High	Yes	AC
C	180/250 FPD	Desk	High	Yes	P
D	180/250 FPD	Kit	High	Yes	DC
E	340 FPD	Deck	High	Yes	AC
F	180/250 CRT	Desk	High	No	P
G	250 FPD	Kit	High	Yes	AC
H	250 FPD	Kit	High	Yes	DC
K	250 CRT	Desk	Medium	No	P
L	340 CRT	Deck	Medium	No	P
N	180/250 CRT	Kit	High	No	P
P	250/340 CRT	Kit	Medium	No	P
R	180/250 CRT	Desk	High	Yes	P
V	250 CRT	Desk	Medium	Yes	P
W	340 CRT	Deck	Medium	Yes	P
Y	180/250 CRT	Kit	High	Yes	P
Z	250/340 CRT	Kit	Medium	Yes	P
DF	250 Dual CRT	Desk	High	No	P
DR	250 Dual CRT	Desk	High	Yes	P

***Deck** means inclusion in a pedestal mounted display unit.

Kit means a screened monitor module for fitting into a customer specified console.

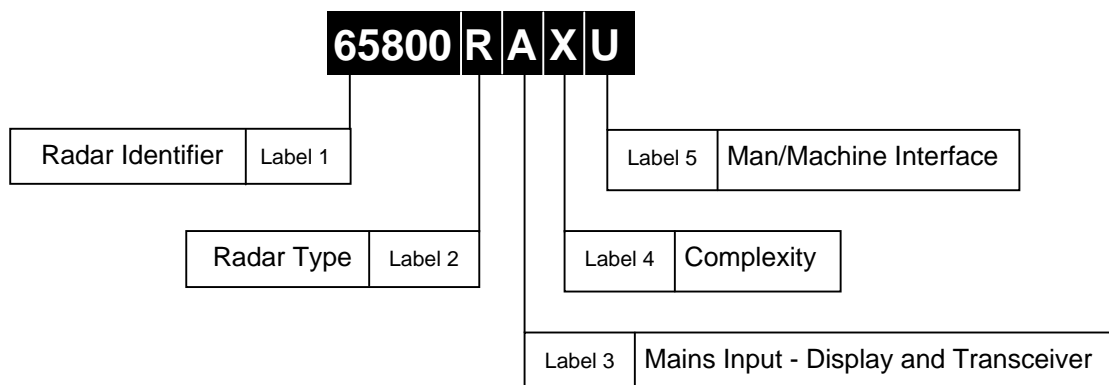
Desk means inclusion in a desk mounted display unit.

†**P** The Processor Electronics Unit supplies the Monitor power.

Note – There is an independent On/Off switch for AC and DC monitors.

Processor Electronics Unit

The type numbers are as follows:



Processor Electronics Unit label

Label 1 **BridgeMaster E Identifier**

Label	Radar Identifier
65800	Standard BridgeMaster E Processor
65818	Dual Channel BridgeMaster E Processor

Label 2 **Radar Type**

Label	Radar Type
P	Electronic Plotting Aid
T	Automatic Tracking Aid
R	Automatic Radar Plotting Aid
Y	ATA with AIS capability
Z	ARPA with AIS capability

Label 3 **Mains Input** for the Display and Monitor

Label	Mains Input
A	110/240V AC, 50/60Hz Single Phase
D	24-32V DC

Label 4 **Complexity**

Label	No of Cards*	RVAP	Compass Type
M	1	No	Special
N	1	No	Standard
R	2	No	Standard
S	3	No	Standard
T	2	Yes	Standard
V	2	No	Special
W	3	No	Special
X	2	Yes	Special

* The number of cards relates to the number of Processor Cards in the Processor Electronics Unit. Two card systems consist of a Display Processor card and a Radar Processor card. Three card systems consist of a Display Processor and two Radar Processor cards (Dual).

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Label 5 Human Machine Interface

Label	Pointer Type	Keyboard	Mounting/Fit*	Memory Card†
A	Joystick	No	Desk	No
B	Trackerball	No	Desk	No
C	Joystick	Yes	Desk	No
D	Trackerball	Yes	Desk	No
E	Joystick	No	Kit	Yes
F	Trackerball	No	Kit	Yes
G	Joystick	Yes	Kit	Yes
H	Trackerball	Yes	Kit	Yes
J	Joystick	No	Desk	Yes
K	Joystick	Yes	Desk	Yes
L	Trackerball	Yes	Desk	Yes
M	Joystick	No	Deck	Yes
N	Trackerball	No	Deck	Yes
O	Joystick	Yes	Deck	Yes
P	Trackerball	Yes	Deck	Yes
R	Trackerball	No	Desk	Yes
S‡	Joystick	No	Deck	Yes
T‡	Trackerball	No	Deck	Yes
U‡	Joystick	No	Kit	Yes
V‡	Trackerball	No	Kit	Yes
W‡	Joystick	Yes	Kit	Yes
X‡	Trackerball	Yes	Kit	Yes
Y‡	Joystick	Yes	Deck	Yes
Z‡	Trackerball	Yes	Deck	Yes

***Deck** means inclusion in pedestal mounted display unit.

Kit means a screened monitor module for fitting into a customer specified console.

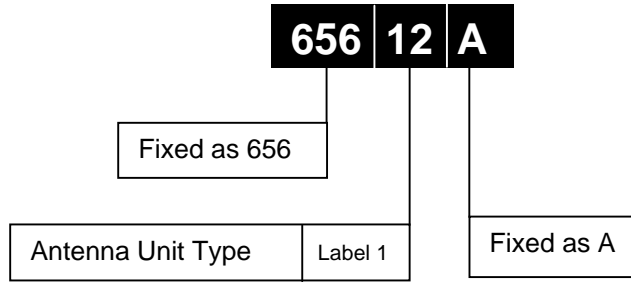
Desk means inclusion in a desk mounted display unit.

†Memory card units cannot be fitted to EPA(L) variants.

‡Processors with these labels are now obsolete and have been replaced by others in the same table.

Antenna Unit

The type numbers are as follows:



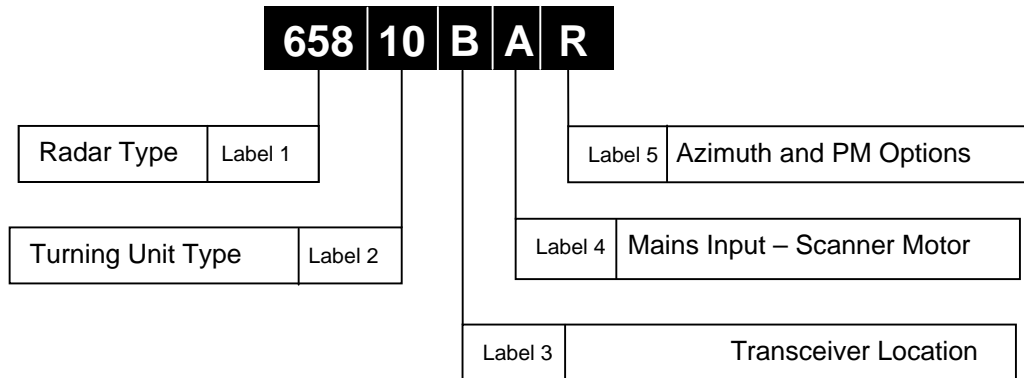
Antenna Unit label

Label 1 **Antenna Type**

Label	Radar Type
04	4ft (X-band)
06	6ft (X-band)
08	8ft (X-band)
09	9ft (S-band)
12	12ft (S-band)

Turning Units and Integral Transceivers

The type numbers are as follows:



Turning Unit and Integral Transceiver label

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Label 1 BridgeMaster E Identifier

Fixed as 658

Label 2 Turning Unit Type

Label	Turning Unit Type
01	X-band without Transceiver
10	X-band with 10kW Transceiver
25	X-band with 25kW Transceiver
30	S-band with 30kW Transceiver

X-band Turning Units are supplied set to 'Standard Speed'. Speed changes are effected by link changes within the unit. S-band Turning Units are correctly set for their turning speed.

Label 3 Transceiver Location and Type

Label	Transceiver Location
B	Bulkhead
C	Bulkhead with additional facilities
L*	Masthead special variant
M	Masthead with biased Limiter
N	Masthead with additional facilities
P	Masthead, 3kHz short pulse variant
R*	Masthead special variant
S	Pressure tested for lifeboat use.
T	Masthead, 3kHz with additional facilities
W	Masthead with non-biased Limiter

* These Scanner Units are special naval variants, and are covered in separate manuals.

Label 4 Mains input – Scanner Motor

Label	Phases	Voltages (V)	Frequency (Hz)	Speed	Band*
A	1	110/240	50/60	S/H	X
D	DC	24 – 32	0	S	X
E	1	110 – 120	50/60	S	S
F	1	220 – 240	50/60	S	S
G	3	110 – 120	50/60	S	S
H	3	220 – 240/380 – 440	50/60	S	S
J	1	110 – 120	50	H	S
K	1	220 – 240	50	H	S
L	3	110 – 120	50	H	S
M	3	220 – 240/380 – 440	50	H	S
P	1	110 – 120	60	H	S
Q	1	220 – 240	60	H	S
R	3	110 – 120	60	H	S
S	3	220 – 240/380 – 440	60	H	S

* For **X-band** Turning Units the motor is powered from the transceiver. This supply matches the Processor Electronics Unit supply.

For **S-band** Turning Units the motor is fed from its own supply via a Scanner Control Unit and can differ from the Transceiver/Processor Electronics Unit supply.

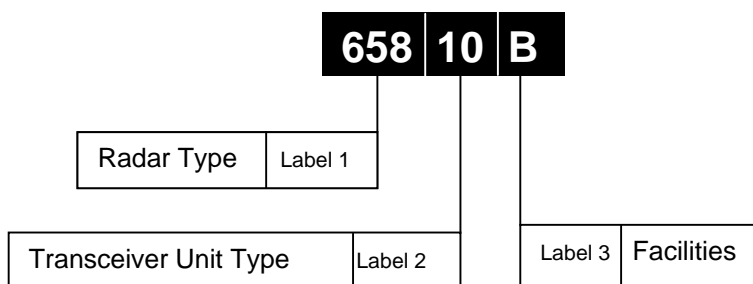
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Label 5 Azimuth and Performance Monitor Options

Label	Performance Monitor	Synchro/Resolver	Synchro Type
P	No	No	N/A
R	Yes	No	N/A
S	No	Synchro	CX
T	Yes	Synchro	CX
U	No	Synchro	CDX
V	Yes	Synchro	CDX
W	Yes	Resolver	11M6P1
X	No	Resolver	11M6P1

Bulkhead Transceiver Unit

The type numbers are as follows:



Bulkhead Transceiver Unit label

Label 1 BridgeMaster E Identifier

Fixed as **658**

Label 2 Transceiver Type

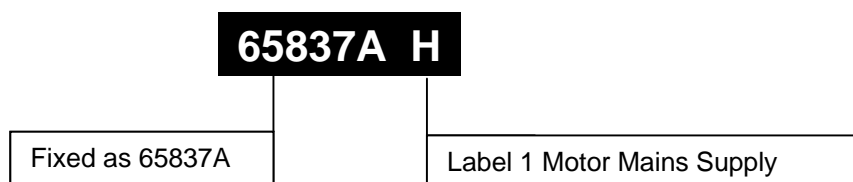
Label	Transceiver Type
10	10kW X-band
25	25kW X-band
31	30kW S-band

Label 3 Facilities

Label	Facilities
A*	E Standard with biased limiter
B*	F With additional facilities
P*	G 3kHz short pulse variant
T*	L 3kHz short pulse with additional facilities
W*	H Standard non-biased limiter

* X-band Units with these labels are now obsolete, and have been replaced by units with the label in the adjacent column.

Scanner Control Unit



The type numbers are as follows:

Scanner Control Unit label

Label 1 Motor Main Supply

Label	Phases	AC Voltage	Antenna Speed
B	3	380/440	Standard
C	3	220/240	Standard
	3	380/440	High
E	1	220/240	Either
	3	110/120	Standard
	3	220/240	High
F	3	110/120	High
H	1	110/120	Either

Scanner Control Units (SCU) are adjusted internally for thermal trip current and the number of phases (1 or 3).

Interswitch Unit

Interswitch Type	System Configuration
65842A	Up to 4 Displays and 2 Top Units
65846A	Up to 6 Displays and 6 Top Units

Note – Either Interswitch unit may be mounted on a bulkhead, but only the 65842A can be fitted within the console Pedestal if available.

Interface Unit

Interface Unit Type	Requirement
65847A	Depends on system interface, watchdog and alarm annunciation requirements. Required for AIS input and high-speed serial Compass input.