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### BC400

#### UHF CB PORTABLE RADIO



#### 

- **30 Channel CB** (477MHz)
- 3) 48 Dealer Programmable Channels (403 520MHz)
- ) Rugged to MIL-STD-810 D/E/F
- ) IP65 Rated

#### **Powerful Audio**

A powerful 1000 mW speaker ensures high quality, clear, crisp sound, even in noisy environments.

#### **Built In Voice Inversion Encryption**

The scrambler feature provides enhanced security for your important public safety and private security communications.

#### Selectable CTCSS Privacy Tones

CTCSS Tones can be selected via the front key pad of **Multiple Signalling Options** the radio as required. This allows the user to eliminate These radios provide a wide range of signalling options interference from other local users on the same allowing dealers maximum flexibility in configuring channel when they choose, providing privacy.



#### **Rugged & Reliable**

The BC400 series portable has been built to withstand the most demanding and harsh environments and complies to MIL-STD810 D, E, & F.

#### Water + Dust Resistant IP65

The BC400 series portable is rated to IP65 providing protection against dust and low pressured jets of water.

systems. Signalling options include: CTCSS, 2 Tone, 5 Tone, DTMF encode and decode.

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INCLUDED RADIO ACCESSORIES

Microphone

Remote Speaker Rapid Desktop **Radio Charger**  240V AC Adaptor









12V DC

Adaptor

- Antenna, Belt Clip & Handstrap

A wide range of optional professional accessories are available. Please refer to our website.



BC400



	27MHZ											UHF 47	7MHZ CB									CELLULA	8
PART NUMBER(S) ANTENNA NAME	oz152 REDBACK	D2623 HI-GLASS	026231 (steel) 026231BK (black) HI-STEEL	026264 FAZE 4	D2629 ADVENTURER	O2632 XTENDER	02634X (fixed) 02634XC (removable) FLEXI-DIPOLE	DZ634ZMC RUGGED FLEXI-DIPOLE	DZ635 EXPLORER	02637 TRUCKIE	02638 (вцаск) 02638W (white) <b>4WHEELER</b>	026383C (BLACK) 026383CW (WHITE) UHF STUMPY	026384 (відок) 026384W (white) <b>UHF 900 TWIN</b>	026384C (BLACK) 026384CW (WHITE) UHF 900 R-TWIN	026385 (вгаск) 026385W (white) UHF 1100 TWIN	026385C (вLACK) 026385CW (WHITE) UHF 1100 R-TWIN	OZ6382K (BLACK) OZ6382KW (WHITE) MINI DESERT STICK	DZ6386K (BLACK) DZ6386KW (WHITE) DESERT STICK	□2648 <b>BASE 8</b>	02649 BASE 12	D2459 CELL REACH	024574 (відск) 024574W (WHITE) CELL 900 TWIN 024577 (відск) 024577W (WHITE) CELL 900 R-TWIN	024576 (вLACK) 024576W (WHITE) CELL 1100 TWIN 024578 (вLACK) 024578W (WHITE) CELL 1100 R-TWIN
LAND MDBILE LIHF / Z7MHZ CB / CELLULAR ANTENNAS	92GM	QOA	67cm	150cM	130cm	B7cM	a 1 cm a a cm M	man	93cM	BSom	I 2 CM		DOM						3304	420cm	BZCM		
APPLICATION	Mobile 27MHz GP		Mobile 477Mhz GP		Mobile 477Mhz GPl			Mobile 450 - 520MHz GPI		Mobile 477MHz GPI				477	d Base 7MHz GPI	Mobile NextG 850 GPI Mobile 3G NextG/3G 850/900/1800/2200 GPI							
FEATURES	Pre-tuned, epoxy coated, rugged & flexible	ldeal for corru- gated and rough roads. Braided conduc- tor.	17/7PH polished S/S metal tip. Rugged & flexible.	Tapered Epoxy.	Rugged, long range. Can be mounted anywhere on vehi- cle. Ideal for 4WDs.	Light- weight GPI ideally suited for 2WD vehicles.	Flexible & compact. Ideal emer- gency antenna for tem- porary replace- ment of large colinears.	Ultra rugged, broad- band, flexi dipole. Full band operation.	Rugged & reliable, includes spare emergen- cy whip. Ideal for 4WDs. 3dB hills, 6.5dB flat terrain.	Hi perfor- mance/ range. Can be mounted anywhere on the vehicle. Ideal for trucks. Mirrors & gutters.	Conve- nient, all situations covered. Rugged dual antenna, fiberglass enclosed. 3dB hills, 6.5dB flat terrain.	Compact and rugged. Fiberglass enclosed. Remov- able.	Rugged cor S/S spring with fix removable Ideal for vehic	mounted ed and e options. garaged	Rugged cor S/S spring with fixe removable Ideal for o vehicles. Hi	mounted ed and e options. garaged	High ga performa rugged constructi fiberglass r push/pull socl	N plug &	Heavy dut with S/S n High per	ty fiberglass nount tube. formance.	S/S whip, elevated feed	Rugged construction S/S spring mounted with fixed and removable options. Ideal for garaged vehicles.	Rugged construction. S/S spring mounted with fixed and removable options. Ideal for garaged vehicles. Higher gain.
LENGTH (cm)	92	65	67	150	130	87	31(X) 33(XC)	33	93 (6.5) 16 (3)	85	120 (6.5) 50 (3)	50	9(	0	11	0	120	205	230	420	82	90	110
GAIN (dB)	0	4	1.5	6	9	6.5	4	4	3 / 6.5	6.5	4 / 6.5		3			6.5			8	12	8	3/6	3 / 7.5
TERMINATION	VHF Base 5/16″ F thread	UTF Dase 5/16" female thread			UHF M-Base Base (XC)		UHF M-Base	5m RG58, FMEs, UHFp adaptor (supplied) (K & KWT only)								ocket	5m LL195 low loss cable w/ FME socket fitted						

dB gain reference is relative to 1/4 wave on ground plane. GPI (Ground Plane Independent) Antenna operates independently of vehicle and can be mounted anywhere. GP (Ground Plane) Antenna requires UHF antenna base with contact to vehicle to operate. Refer to back page for an in-depth antenna guide.

Radio image actual size WWW.BENELEC.COMAU

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### ANTENNA ACCESSORIES

#### MOUNTING, BASES, LEADS & MORE

#### MOBILE ANTENNA MOUNTING

MOBILE	E ANTENNA MOUNTING							
02714S	Fold Down Gutter Bracket S/S							
02726S	Heavy Duty Gutter Bracket S/S							
02728	Mirror/Roof Bracket Bar S/S							
02728B	Mirror/Roof Bracket Bar ZPS							
02729	Wall Bracket 100mm S/S							
027291	Light Weight L Bracket S/S							
02730	Bull Bar Bracket - Right Angle S/S							
02730B	Bull Bar Bracket - Right Angle ZPS							
027303	Adjustible Swivel "Lip" Mount							
027313	Wrap Around Bull Bar Bracket 45mm							
027314	Wrap Around Bull Bar Bracket 50mm							
02732	Heavy Duty Bull Bar Bracket 64mm Tube S/S							
027321	Heavy Duty Bull Bar Bracket 76mm Tube S/S							
02734	'Z' Trunk Groove Bracket S/S							
02734B	'Z' Trunk Groove Bracket ZPS							
027423	'Super Sucker' Magnetic Suction Base 16mm Hole							
02795	UHF Adaptor 5/16" Male to M Base							
BASE A	NTENNA MOUNTING							
02811	Parrallel Mounting Bracket 90/60mm ZPS							
028115	Parrallel Mounting Bracket 90/60mm S/S							
MOBILE ANTENNA BASES								
02720	Black VHF Standard Base 5/16" 26 TPI							
02724	'Big Mag' H/D 140mm Mag Base - M Base/UHF Socket & 4m x RG58 to UHFp							
02740	UHF Standard Base 5/16" M 26TPI							
02742	UHF Heavy Duty Base 5/16" Male to UHF Socket							
MOBILE	ANTENNA LEADS & ACCESSORIES							
10106F	VHF Base 3.6m RG58 & UHFp Fitted							
101046	5m FMEs to FMEs Extension Cable for 10109C							
10108	UHF Base 3.6m RG58 to UHFp Fitted							
10109	UHF M Base 5m RG58 to FME Socket Fitted							
10109C	UHF M Base 450mm LL100 Black to FME Plug							
10101	Jumper Lead UHFp to UHP 350mm							
173810	UHF 2Way Switch - 2 in x 1 out							
BASE A	NTENNA LEADS							
101210	UHF Plug to N Plug 10m x RG213							
101215	UHF Plug to N Plug 15m x RG213							
DC POV	VER LEADS							
10505	2 Pin, 2 Amp In-Line Fuse & Holder Suitable for Unider							
10507	2 Pin "T" Secure Plug 4mm <sup>2</sup> x 20 Amp Fused + & -ve							
10510	2 Pin, 2 Amp In-Line Fuse & Holder Suitable for GME							
ANTENNA TEST INSTRUMENT								
0301	VSWR/Power Meter 1.8-525MHz							





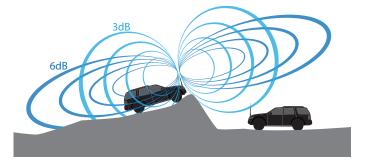
## ANTENNA SELECTION GUIDE

#### WHICH ANTENNA DO I NEED?

Gain describes the shape of the radiation from an antenna. Use a higher gain antenna for better performance in open flat terrain. Use a lower gain antenna for better performance in rough mountainous terrain.



We recommend the use of a lower gain antenna for the communications in vehicle convoy situations.



When operating between mountainous and open terrain, think about choosing an antenna with interchangeable high gain and low gain whip tops, or use two antennas with an RF switch.

Note that Stainless Steel whip antennas will not last on corrugated roads. They are not suitable for this application.

#### GP/GPI RADIATING PATTERNS

Ground Plane Independent (GPI) antennas can be mounted anywhere on the vehicle.

These antennas work independently of the vehicle body, and as such they provide consistent performance all the way around the antenna.





Grounded Plane (GP) antennas rely on the metal surface of the vehicle for performance. If you mount this style of antenna on the edge of a vehicle, the radiation pattern will be biased towards the area with the largest amount of metal (an offset pattern).



There will also be a deterioration in the VSWR of grounded antennas that are mounted on the edge of the vehicle. Grounded antennas generally should only be mounted in the centre of the vehicle roof.

> BENELEC PTYLTE O2 9364 7000

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#### CONNECTOR ADVICE

We recommend to add a thread locking adhesive (eg Loctite 242 Blue – Threadlocker Medium Strength) at the interface between the cable connector (FME socket) and the UHF plug adaptor as it's possible for this connection to vibrate loose over time.

Exposed connectors should be sealed with self amalgamating tape such as Benelec P/N 5052219BK or equivalent.

#### CABLE ADVICE

Care must be taken to not damage, cut or crush the coaxial cable when routing it to the transceiver through a vehicle.

We recommend to seal any points where the cable enters the vehicle.

#### MOUNTING TIPS & ADVICE

- For better performance locate the antenna higher on the vehicle.
- Brackets and antenna mountings are to be secured properly.
- Antennas must be mounted vertically, this is particularly important with higher gain antennas.
- Avoid affixing any object to the antenna as it could affect the performance of the communications system.
- Ground Plane antennas need to be fitted direct to vehicle panels, as bracket mounting will compromise the performance.
- Do not mount antennas close to each other. Min distance should be 70cm between antennas. The further apart the two antennas, the better the performance of each respective antenna.
- Do not mount antennas closer than 70cm to any metal vertical surface.
- Do not mount antennas operating on the same band, at the same horizontal level unless a switch selects them.

#### Available from:

BENELEC **Professional Wireless Solutions** 

# REACH LAND MOBILE UHF / 27MHZ CB / CELLULAR ANTENNAS

FOUR-WHEEL DRIVE

MINING & INDUSTRIAL

TRUCKING & TRANSPORT

FARMING & AGRICULTURE

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