

# Apparatus Licence

Issued by Delegate of the Australian Communications and Media Authority



## Licensee details

Customer ID	159310
Licensee	THE WIRELESS INSTITUTE OF AUSTRALIA VICTORIAN DIVISION
Trading name	The Wireless Institute of Australia Victorian Division
Licensee address	9 Carrington Street, SYDENHAM, VIC 3037

## Licence details

Licence service	Amateur
Licence subservice	Amateur Repeater
Licence number	1327353/5
Callsign	VK3RBO
Date of issue	20/03/2024
Date of effect	20/03/2024
Date of expiry	02/05/2025

## Licence conditions

Your licence is subject to conditions set out in the *Radiocommunications Act 1992*. Your licence may also be subject to such other licence conditions as determined by the ACMA (in licence condition determinations) from time to time, and is also subject to special conditions as detailed on this licence.

The conditions that are imposed on a licence vary according to the type of licence issued, the service being operated and the section of the *Radiocommunications Act 1992* under which the licence has been issued. For further information about the conditions that apply to your licence, please contact the ACMA (see contact details below).

### **Rights of appeal**

A decision by the ACMA to impose further conditions or revoke or vary the conditions of your licence may be reviewable. If you are affected by, and dissatisfied with, such a decision you may apply to the ACMA to have the ACMA reconsider the decision under section 288 of the *Radiocommunications Act 1992*.

An application for reconsideration must state the reasons for the request, and should be sent to the Customer Service Centre, Australian Communications and Media Authority, PO Box 78, Belconnen, ACT, 2616. Applications for review of decisions can be made using the R051 - Application for review of Decision form, available on the ACMA website.

### **Important**

An application for the ACMA to reconsider a decision to impose or vary licence conditions must be made to the ACMA within 28 days of the day on which you are informed of the decision. An application for reconsideration made after that time may not be accepted.

## ACMA contact details

Customer Service Centre  
PO Box 78  
BELCONNEN ACT 2616

Telephone: 1300 850 115  
Email: [info@acma.gov.au](mailto:info@acma.gov.au)

ACMA website: [www.acma.gov.au](http://www.acma.gov.au)

## **Advisory Notes applying to licence no.: 1327353/5**

Conditions applicable to the operation of Amateur Repeater station(s) authorised under this licence can be found in the Radiocommunications Licence Conditions (Apparatus Licence) Determination and the Radiocommunications Licence Conditions (Amateur Licence) Determination. Copies of these determinations are available from the ACMA and from the ACMA home page ([www.acma.gov.au](http://www.acma.gov.au)).

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 1:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	438.125000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0003195240
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	11K3F9W

#### Antenna details

Antenna ID	60290
Antenna polarisation	V - Vertical linear
Antenna azimuth	0.00
Antenna height (m)	20
Antenna type	Dipole-D

#### Receiver details

Assigned frequency	431.125000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0003195241
Transmitter power	N/A
EIRP	N/A
Emission designator	11K3F9W

#### Antenna details

Antenna ID	60290
Antenna polarisation	V - Vertical linear
Antenna azimuth	0.00
Antenna height (m)	20
Antenna type	Dipole-D

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 2:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	438.125000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0003195242
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	11K3F9W

#### Antenna details

Antenna ID	60290
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Dipole-D

#### Receiver details

Assigned frequency	433.125000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0003195243
Transmitter power	N/A
EIRP	N/A
Emission designator	11K3F9W

#### Antenna details

Antenna ID	60290
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Dipole-D

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 3:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	438.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0003195244
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	16K0F9W

#### Antenna details

Antenna ID	60290
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Dipole-D

#### Receiver details

Assigned frequency	431.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0003195245
Transmitter power	N/A
EIRP	N/A
Emission designator	16K0F9W

#### Antenna details

Antenna ID	60290
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	20
Antenna type	Dipole-D

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 4:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	445.500000 MHz
Bandwidth	6.700000 MHz
Freq. assign. ID	0002841514
Transmitter power	120.00 W
EIRP	125.60 W
Emission designator	6M70V7W

#### Antenna details

Antenna ID	80442
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Dipole-D

#### Receiver details

Assigned frequency	1.24600000 GHz
Bandwidth	6.700000 MHz
Freq. assign. ID	0002841515
Transmitter power	N/A
EIRP	N/A
Emission designator	6M70V7W

#### Antenna details

Antenna ID	70081
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Parallel array of horizontal dipoles-A

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 5:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	445.500000 MHz
Bandwidth	6.700000 MHz
Freq. assign. ID	0002841516
Transmitter power	120.00 W
EIRP	125.60 W
Emission designator	6M70V7W

#### Antenna details

Antenna ID	80442
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Dipole-D

#### Receiver details

Assigned frequency	1.25500000 GHz
Bandwidth	6.700000 MHz
Freq. assign. ID	0002841517
Transmitter power	N/A
EIRP	N/A
Emission designator	6M70V7W

#### Antenna details

Antenna ID	70081
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Parallel array of horizontal dipoles-A

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 6:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	438.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0000517158
Transmitter power	120.00 W
EIRP	
Emission designator	16K0F3E

#### Antenna details

Antenna ID	70030
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Colinear Vertical-U

#### Receiver details

Assigned frequency	433.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0000517159
Transmitter power	N/A
EIRP	N/A
Emission designator	16K0F3E

#### Antenna details

Antenna ID	70030
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Colinear Vertical-U



## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 7:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	444.250000 MHz
Bandwidth	6.250000 MHz
Freq. assign. ID	0000517160
Transmitter power	120.00 W
EIRP	
Emission designator	6M25C3F

#### Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 8:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Receiver details

Assigned frequency	1.25000000 GHz
Bandwidth	18.000000 MHz
Freq. assign. ID	0000517161
Transmitter power	N/A
EIRP	N/A
Emission designator	18M0F3FNN

#### Antenna details

Antenna ID	1
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 9:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	440.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0000517162
Transmitter power	10.00 W
EIRP	
Emission designator	16K0F3E

#### Antenna details

Antenna ID	20131
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

#### Receiver details

Assigned frequency	430.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0000517163
Transmitter power	N/A
EIRP	N/A
Emission designator	16K0F3E

#### Antenna details

Antenna ID	20131
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

### Special Conditions applying to Station 9

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 10:

#### Site details

Site ID	136253
Site address	22 Montgomery Crescent, WHITE HILLS VIC 3550
Co-ordinates (GDA94)	Latitude: -36.732809 Longitude: 144.301747

#### Transmitter details

Assigned frequency	430.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0000517164
Transmitter power	10.00 W
EIRP	
Emission designator	16K0F3E

#### Antenna details

Antenna ID	20131
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

#### Receiver details

Assigned frequency	440.025000 MHz
Bandwidth	25.0000 kHz
Freq. assign. ID	0000517165
Transmitter power	N/A
EIRP	N/A
Emission designator	16K0F3E

#### Antenna details

Antenna ID	20131
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

## Special Conditions applying to Station 10

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 11:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	2.41500000 GHz
Bandwidth	6.250000 MHz
Freq. assign. ID	0000517166
Transmitter power	100.00 W
EIRP	
Emission designator	6M25C3F

#### Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Unknown antenna type, size or specifications-

### Special Conditions applying to Station 11

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Operation of this service is authorised only on a 'secondary' basis as defined in part 3 of the Australian Spectrum Plan #413.

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 12:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	2.42000000 GHz
Bandwidth	130.0000 kHz
Freq. assign. ID	0000517167
Transmitter power	100.00 W
EIRP	
Emission designator	130KF3E

#### Antenna details

Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Unknown antenna type, size or specifications-

### Special Conditions applying to Station 12

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Operation of this service is authorised only on a 'secondary' basis as defined in part 3 of the Australian Spectrum Plan #413.

## Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

### Main Station Site

### Station 13:

#### Site details

Site ID	300440
Site address	Comms Site, Specimen Hill Reservoir, BENDIGO VIC 3555
Co-ordinates (GDA94)	Latitude: -36.76632 Longitude: 144.244345

#### Transmitter details

Assigned frequency	446.500000 MHz
Bandwidth	7.000000 MHz
Freq. assign. ID	0001356845
Transmitter power	120.00 W
EIRP	199.15 W
Emission designator	7M00V7W

#### Antenna details

Antenna ID	60008
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Dipole-D

#### Receiver details

Assigned frequency	446.500000 MHz
Bandwidth	7.000000 MHz
Freq. assign. ID	0001356846
Transmitter power	N/A
EIRP	N/A
Emission designator	7M00V7W

#### Antenna details

Antenna ID	60008
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	30
Antenna type	Dipole-D