

A.W. Communication Systems Ltd.

Product Brief DRC-1s

- Motorola Signalling
- Simoco Signalling
- Modem Access
- Speech/data priority setting
- M80 Emulation
- Internal/external microphone
- Internal/external loudspeaker
- Headset option
- Easy to configure
- Separate PSU
- Low cost



The DRC-1s has been specifically designed with ease of configuration and, ease of use in mind. The unit employs our own DSP software code providing signal generation and detection, and is housed in an ergonomically designed rugged ABS case.

The unit offers full control for land-line based remote radio sets via 600 ohm balanced lines. The configurable features include the generation of either Motorola tone remote signalling or Simoco (2970Hz) key tone, M80 emulation, both local and remote, plus many other configurable features.

The unit is eminently suitable for providing dual manual and computer access to, and control of the radio base station over land-line, with configurable signalling format and configurable priority given to either speech dominant or data dominant systems.

The interface connectors are found in a single row to the rear of the case, thus permitting neat wiring to the unit. The front panel has tactile pushbuttons for volume, loudspeaker mute and TT on/off, plus LED's for, channel busy, TX, and TT state. The unit is provided with a robust push to talk button.

Configuration of the unit is carried out over a serial RS232 connection from a PC application available from the AWCSL website.

The external connectors:

Line Socket	RJ45	for the connection of four-wire land line
Microphone Socket	RJ6	To connect an external microphone if required
Auxiliary Socket	DB9F	For external modem connection
External PTT	2Pin	For connection of a foot switch PTT
External Speaker	3.5mm Socket	for connecting an external speaker if required
Power Connector		for 12v DC power input
Headset socket	RJ8	For connection of a suitable headset
Serial port	DB9F	Used for programming and also remote control

Line Interface Connector RJ45

Pin No	Signal	Notes
1	Line input 0	600Ω balanced
2	Line input 1	600Ω balanced
3	Line output 0	600Ω balanced
4		
5	COR Input	Active low
6	Line output 1	600Ω balanced
7	PTT output	Active low
8	Ground	

Desk Microphone Connector RJ11

Pin No	Signal	Notes
1	Earpiece output	150Ω
2	Ground	
3	Microphone input	2KΩ
4	PTT	Active low
5	External microphone select	Active low
6	Auxiliary +5v DC	Limited to 500mA

Auxiliary Connector DB9F

Pin No	Signal	Notes
1	Auxiliary +12v DC	Limited to 500mA
2	Audio output 0	600Ω balanced
3	Audio input 0	600Ω balanced
4	Auxiliary PTT input	Active low
5	Operators busy signal output	Active low
6	Aux input	Active low
7	Audio output 1	600Ω balanced
8	Audio input 1	600Ω balanced
9	Ground	

Special note: The auxiliary power supply is fed by an auto-reset fuse. The output from the supply when all of the auxiliary outputs are summed should not exceed 500mA.

The signalling interface which the DRC-1s presents to the outside world is programmable, and configured with a PC application available from the AWCSL website..

The unit is fully compatible with our TC-1 remote tone receiver should a non Motorola / Simoco base station be in use, or chosen for a new project.

Further details of the TC-1 together with all of our products can be found on our customer support web site www.awcsl.com

Talk Through Path

The unit is capable of providing talk through in one of two ways. In remote talk through, operation of the talk through switch will cause a signal to be transmitted to the base station, which will then engage talk through at the base station, T/T LED is now on. Second operation of the switch will cancel talk through by sending an appropriate signal to the base station. T/T LED is now off.

If local talk through is selected, then operation of the talk through switch creates a talk through path within the unit by connecting the input line to the output line, and triggering PTT from the receive vox. The vox hang time prevents syllable loss during speech pauses. No control signals are sent to the base station in this mode of T/T generation. The T/T LED indicates that T/T is on.

Level Setting

The level to line is adjustable by use of the configuration tool. The adjustment range is 0dBm to -30dBm. Ex factory the line levels are set to the default standard of -10dBm.

Auxiliary Connector Notes.

Pin 5 is used to signal to the data computer that the operator has the PTT engaged, i.e. the system is in use. Depending upon the data priority, which has been configured, the computer may or may not seize the radio system to use.

Pin 6. Taking this line low (as part of the computer interface) will cause the loudspeaker to be muted whilst the computer is transmitting data.

In the interests of continued development, A.W. Communications reserve the right to change this specification without notice.

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