Radio 1

Radio 2

Radio 3

RW3
Radio Interface Unit
RIU

Handset / Headset
User Voice

Loudspeaker

Field Wire Line (up to 5km)

DC Supply Voltage

RW3
Remote Control Unit
RCU

Handset / Headset
User Voice

Loudspeaker
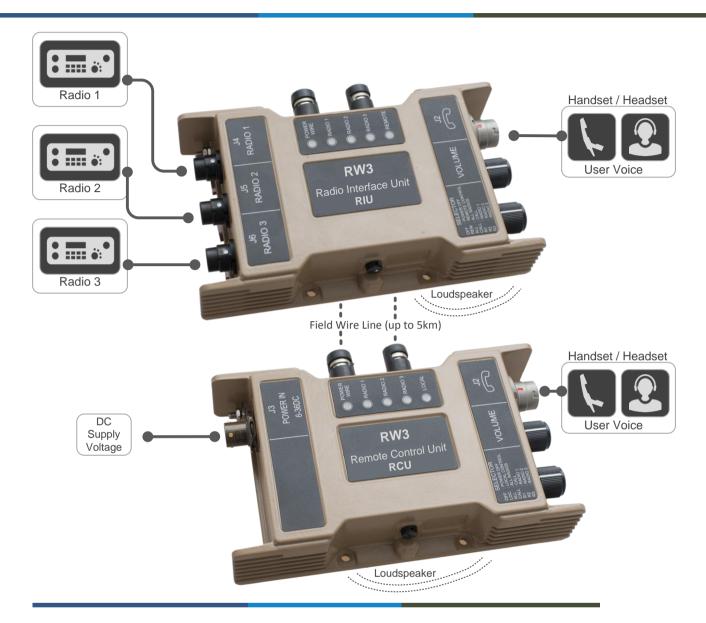
FUNCTIONS AND APPLICATIONS:

○ Radio remote operation up to 5km away

○ Supports up to 3 radios

○ Monitor voice on all 3 radios simultaneously

FEATURES & BENEFITS:

○ Robust design

○ Field wire compatible

○ Ease of installation and use

○ Continuous field wire integrity checking

○ Built-in Loudspeaker

RADIO REMOTE OPERATION AND CONTROL

The **RW3** Three-Radio Remote Set allows an operator to use radios from a remote location up to 5 km away using D-10 or P-274 field wire. The remote operator can select one of the three connected radios to use and speak over the selected radio.

The **RW3** can be used to set up radio communications for open-pit or underground mining applications, rapid high-site installations and general radio remote use scenarios.

The **RW3** system consists of two parts:

○ **Radio Interface Unit (RIU)**: Connects to the radios

○ **Remote Control Unit (RCU):** Used by the remote operator

*The **RIU** and the **RCU** must be connected to each other using D-10 or P-274 field wire (not included).

The **RW3** also provides an operator CALL function between the **Radio Interface Unit** and **Remote Control Unit**.

RADIO INTERFACE UNIT CAPABILITIES

The *Radio Interface Unit (RIU)* connects to the Radios. It indicates the status of the power supply, radio connection(s) and the integrity of the Field Wire line. The *RIU* is powered directly from any of the connected radios.

REMOTE UNIT CAPABILITIES

The *Remote Control Unit (RCU)* provides the interface from which to operate the radio(s). It has a handset connection with volume control which allows normal voice operation. It also has a selector switch to select the radio and mode of operation. The *RCU* connects to the *RIU* via a length of Field Wire. The *RCU* is powered from an external DC power source.

REMOTE TO LOCAL COMMUNICATION

The *RW3* units provide a CALL mechanism between the *RIU* and *RCU* units. This allows the *RIU* to be manned and receive voice calls from the *RCU* operator. Alternatively, the *RIU* operator can receive calls from various radios and route them to the *RCU* unit operator.

BUILT–IN LOUDSPEAKER

Both *RW3* units are fitted with internal waterproof loadspeakers to alert operators of incoming calls or to monitor radio activity.

RADIO REMOTE SET PACKAGE

The *RW3* package includes:

> 1x Remote Control Unit - RCU
>
> 1x Radio Interface Unit - RIU
>
> 1x DC Power Cable (unterminated)
>
> 1x H-250 type handset
>
> 1x User Manual
>
> 2x Earth straps

Field wire not included (D-10 or P-274 up to 5km)

ACCESSORIES

RIU to Radio Cables (required): Contact *RapidM* for the appropriate cables for your radio models.

Accessories: Please contact *RapidM* for handsets / headsets and Accessory Information.

RIU HARDWARE		RIU ENVIRONMENTAL	
SIZE & WEIGHT	165 x 96 x 37 mm (w x d x h) 800 g	**TEMPERATURE**	Operating: -20°C to +60°C Storage: -40°C to +70°C
COLOUR	Light grey	**IMMERSION**	IP67: 30 min at 1m
EMI	EN 55022, EN 55024, MIL-STD-461E	**ENVIRONMENTAL**	MIL-STD-810G: Humidity, Shock, Vibration, Dust
RIU INTERFACES	**DESCRIPTION**		
2X WIRE LINE POSTS	**FIELD WIRE: 2-Wire interface.** D-10, P-274 or similar line. 5km maximum length.		
HANDSET (U-183)	**Handset or Headset (D)MIC:** 150 Ohm Coil, **PHONES:** 300 - 1,000 Ohm, PTT_IN (I), PTT_OUT (O), GND, HSET_SUPPL (15V)		
RADIO (P17N)	**Audio (R1, R2, R3) :** (D) AUD_TX 220mV 150Ω, (B) AUD_RX 220mV 150Ω , (H) AUD_COM, (C) PTT (open collector), (A) GND		
	(G) Power (R1, R2, R3): Input to RIU, 6 – 36 VDC MIL-STD-1275 Vehicle Power & polarity protection.		
VOLUME	11 Position Volume Control		
SELECTOR	Mode selector switch: OFF, REM (Remote Control), ALL (All Radios), CALL (Call RCU), R1 (Radio 1), R2 (Radio 2), R3 (Radio)		
STATUS LEDS	Power indication, WIRE LINE connectivity indication, RADIO 1, RADIO 2, RADIO 3 connectivity indication, RCU call indication.		
SPEAKER	2x 4 Watt 8 Ohm internal		

RCU HARDWARE		RCU ENVIRONMENTAL	
SIZE & WEIGHT	165 x 96 x 41 mm (w x d x h) 800 g	**TEMPERATURE**	Operating: -20°C to +60°C Storage: -40°C to +70°C
COLOUR	Light Industrial Grey RAL9002	**IMMERSION**	IP67: 30 min at 1m
EMI	EN 55022, EN 55024, MIL-STD-461E	**ENVIRONMENTAL**	MIL-STD-810G: Humidity, Shock, Vibration, Dust
RCU INTERFACES	**DESCRIPTION**		
2X WIRE LINE POSTS	**FIELD WIRE: 2- Wire interface.** D-10, P-274 or similar line. 5km maximum length.		
HANDSET (U-183)	**Handset or Headset (D)MIC:** 150 Ohm Coil, **PHONES:** 300 - 1,000 Ohm, PTT_IN (I), PTT_OUT (O), GND, HSET_SUPPL (15V)		
ETHERNET (62IN8-4F)	(1) RX+, (2) RX-, (3) TX+, (4) TX-		
VOLUME	11 Position Volume Control		
SELECTOR	Mode selector switch: OFF, : REM (Remote Control), ALL (All Radios), CALL (Call RIU), R1 (Radio 1), R2 (Radio 2), R3 (Radio)		
STATUS LEDS	Power indication, WIRE LINE connectivity indication, RADIO 1, RADIO 2, RADIO 3 connection indication, RIU call indication.		
POWER	6 – 36 V DC, MIL-STD-1275E Vehicle Power & polarity protection.		
SPEAKER	2x 4 Watt 8 Ohm internal		

ORDERING INFORMATION	STOCK NUMBER	DESCRIPTION
RW3 Three-Radio Remote Set	RW3-TU-3RLC-VE1	RW3 Set: Remote 3 Radio, Loc, H250 EN V1