ADVANCED RACU SOLDIER SYSTEM

General Description

Kord Defence Pty Ltd (Kord) has recently provided a number of its Advanced RACU Soldier Systems to the Ukrainian Defence Force after extensive testing on the frontline.

Each Soldier System comprises two main elements:

- RACU 3BTN Commander System; and,
- Weapon-mounted and Body-worn Soldier Ancillaries.

The RACU System enables the Operator to control Weapon Mounted, Body Worn and Head Mounted Electronic Devices whilst maintaining a firing position and without having to take his/her eyes off task. It controls the following key functions of the Soldier Ancillaries:

- Radio: Push-To-Talk [PTT].
- Laser Aimer: On/Off/Latch.
- Flashlight: On/Off.

An itemised list of all components that make up the Soldier System is given in the Table below:

ELEMENT	COMPONENT	QTY
RACU Commander System	Programmable, 3 Button [Btn] Controller [Commander]	**1**
	Bluetooth Low Energy (BLE) Adapter with cable assembly to Weapon-Mounted Soldier Ancillaries	**1**
	BLE Side Connector with cable assembly and in-line PTT	**1**
Weapon-Mounted Ancillaries	STEINER Aiming Laser [DBAL-3]	**1**
	SUREFIRE Flashlight [Scout Light Pro]	**1**
Body-Worn Ancillaries	MOTOROLA two-way radio [DP4401e] [VHF] with required accessories, including rechargeable batteries and chargers	**1**
	OTTO tactical communications headset [NoizeBarrier TAC] with accessories and helmet attachments	**1**

The Soldier System described below has been developed for use in Dismounted Close Combat operations.

Configuration

The Soldier System configuration is shown below in diagrammatic form. It employs the latest available versions of the relevant weapon-mounted devices plus an in-line PTT switch between the radio and the OTTO Noizebarrier Tactical headset.

Figure 1: Advanced RACU Soldier System Configuration

The 3-Btn Commander operates via a wireless Bluetooth Low Energy (BLE) link. All controllers contain programmable microprocessors, advanced chordic firmware, batteries and RF circuitry that enables them to transmit commands to Weapon Mounted Electronic Devices via a single weapon-mounted Device Adapter (DA). Commands are transmitted to the Body-Worn radio via its BLE side-adapter (the Radio Adapter [RA]).

The RACU Systems can be programmed to control a multiplicity of devices and Commanders can be paired to enable control of more complex systems. Systems can be configured to meet user requirements for buttons to control specific ancillary functions

RACU Benefits

The RACU provides operators engaged in combat with a fast, simple and safe way of remotely operating their Electronic Devices from one central location without taking either their eyes off task or hands of their weapon. Importantly it also enables remote operation of the PTT radio function, which allows the radio to be relocated, thus creating more space on the front of the soldier's chest.

In summary, the RACU System can provide the following five broad capability benefits:

- improves soldier performance and combat effectiveness;
- reduces soldier Cognitive Load and improves survivability;
- reduces system complexity and improves soldier integration;
- improves training efficiency; and
- reduces life cycle costs.

Head up, eyes on target, hands on weapon ®