

# Clear-Com Encore™

RS-601, RS-602, RS-603, TWC-701, TWC-704



RS-601 & RM-602 Beltpack

The **RS-600** Series beltpacks offer the best sounding party-line in the business. Exclusive audio shaping, powerful, high-headroom headphone amps, noiseless switching and built-in mic limiters are key parts of the package. The RS-600 Series are designed to serve the needs of all users, whether first time or experienced pros. All models offer a host of leading-edge features with simple-to-use operation. They provide excellent audio quality and are rugged enough to survive the day-to-day usage of demanding professional applications.

Each of the beltpack's functions are easily customized to fit the users needs. This is accomplished with on-board setup, which provides access to the most commonly varied functions (Talk button latch type, Call on Talk, Mic Level, etc.). For the most demanding applications, additional options can be selected from a PC with the V-Pack software. In either case, once set up, the beltpack holds up to four of these configurations, called Modes, in memory until changed again, even if disconnected from a system. If the original factory default modes are desired, they can quickly be recalled.

Clear-Com offers a 600 Series model to suit any application: single or dual channel; mono or split ear; TW or discrete 2-channel. All two-channel versions offer an additional local program input, minimum headset level, channel reverse and

channel exclusive. Two-channel TW versions are offered with male or female headset jacks with 4, 5, and 6 pin varieties available. Two-channel TW versions can also be set for full RTS™ compatibility, including audio levels, audio response, call signaling and Remote Mic Kill (RMK).

All beltpacks are housed in a custom designed ABS enclosure, engineered to withstand demanding day-after-day use even in high-intensity situations. Ergonomically placed controls and ample status indicators allow an effortless workflow.

## Features:

- Lightweight and ergonomic
- Rugged construction
- Built-in limiters for mic and headset
- Electret mic compatible
- Visual and Audio Call Signals
- Onboard setup with LED assistance
- Auxiliary headset jack for Clear-Com CC-25 ultra-light headset
- Stores four set-up Modes
- Additional setup options through PC interface
- Single channel version works on a TW line
- Clear-Com TW and RTS-TW compatibility on selected models
- Built in audio shaping and mic noise gate
- Program Input w/level control
- Fully compatible with all Clear-Com party-line systems

[www.clearcom.com](http://www.clearcom.com)

## RS-601

Single channel with 3-pin female and male XLR, 4-pin male XLR headset connector, 2.5mm AUX headset connector and an RS-232 data connector. All the performance and durability of the world standard plus TW compatibility. Allows use on a TW line (Audio on Channel B) without loading down channel A.

## RS-602

Dual channel with 6-pin female and male XLR, 4-pin male XLR headset connector, 2.5mm AUX headset connector and an RS-232 connector. This version uniquely allows local audio program connected through pins 5 and 6 of the intercom line connector to be looped through to other RS-602/622's in a daisy chain. A separate volume control sets program level. AC and DC Call signaling on both channels.

## RS-622

Similar to RS-602 with split-ear operation via 6-Pin male XLR headset connector. Line connection through 6-Pin female XLR. Intercom channels can be mixed into the opposite ear with V-PACK software.

## RS-603 (TW)

Dual channel with 3-pin female and male XLR, 4-pin male XLR headset connector, 2.5mm AUX headset connector and an RS-232 connector. Onboard switch selects loop through connector as audio program in. A separate volume control sets program level. RTS line compatible. AC call signaling on both channels; DC call signaling on Channel B (reversible). Channel exclusive allows use as a single channel beltpack.

## RS-603R (TW)

Similar to RS-603 but with 4-pin female XLR headset connector. Factory default set for RTS compatibility.

## RS-623 (TW)

Similar to RS-603 with split-ear operation via 6-Pin male XLR headset connector. Intercom channels can be mixed into the opposite ear with V-PACK software.

## RS-623R (TW)

Similar to RS-603 with split-ear operation via 5-Pin female XLR head-set connector. Intercom channels can be mixed into the opposite ear with V-PACK software. Mono compatible. Factory default set for RTS compatibility.

## Bottom Panels



RS-601



RS-602



RS-622



RS-603



RS-603R



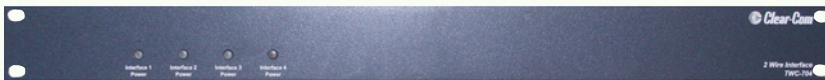
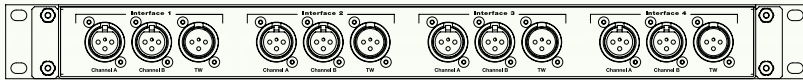
RS-623



RS-623R



TWC-704 Front panel



TWC-704 Back panel

## Adapters

All TW belt packs require a Clear-Com TWC-701 or TWC-704 circuit for two-channel operation. The adapter allows the connection of TW belt packs to two-channels of a multi channel Clear-Com system. The TWC-701 combines the channels (A and B) from two separate cables onto a single standard microphone cable. Each TWC-701 or TWC-704 module can drive up to 15 RS-603 series belt packs.

## V-Pack™ Programming Software

Clear-Com V-PACK software offers the user the ability to create, store and transfer various set-up options between the belt-pack and a PC. The PC connects to a belt-pack via a DB-9 female to 3.5mm plug cable (VPC-1).

Once connected, all the on-board set-up options plus additional ones are available to select and write into a belt-pack's memory. Belt-pack Cloning™ enables writing to a succession of belt-packs in quick order. Select the set-ups, connect the belt-pack and press the Clone button. Repeat the process for the next one and so on.

The easy to use program is available as a free download from the Clear-Com web site.

**Functions available through V-Pack™ software include all on-board functions plus:**

- Belt-pack Cloning
- Single or Double Tap to Latch
- Release Talk with RMK Signal
- Limiter On/Off

**Two Channel units add:**

- 20 kHz AC and DC Call Signaling
- Minimum Headset Listen Level
- Mic Flat or Contoured Response
- Auxiliary Headset Earphone Level



### Technical Specifications

dBu is an absolute measurement. 0 dBu is referenced to 0.775 volts RMS

#### All Beltpacks:

##### General

Amplifier Design:	I.C. amplifiers, including solid-state digital switching and signaling circuits. Current-limited and short-circuit protected.
Signal to Noise:	>75 dB
Bridging Impedance:	>15k
Line Level:	-14 dB, +5 dB max.
Sidetone Adjust:	>35 dB
EMI and RFI rejection:	>60 dB

##### Microphone Pre-Amplifier

Headset Mic Impedance:	200 Ω
Gain, mic to line:	41 dB (dynamic)
Limiter Range:	26 dB
Frequency Response:	200 Hz – 12 kHz contoured for intelligibility

##### Headphone Amplifier

Load Impedance:	50 - 2,000 Ω
Output Level:	+17 dBv before clipping
Distortion:	<0.1% THD @ 1 kHz
Gain, line to output:	+34 dB
Frequency Response:	100 Hz - 18 kHz, ±2dB

##### Environmental

0°C - 70°C (32°F - 158°F)  
0 - 90% relative humidity

#### RS-601 Beltpack:

##### Connectors

Intercom Line:	(2) 3-pin XLR-M-F
Headset:	4-pin XLR-M

##### Power Requirements

<b>RS-601</b>	
26mA quiescent	
30mA average talk	
50mA talk with signaling	
DC Voltage Range:	12-32 volts

##### Environmental

0°C - 70°C (32°F - 158°F)  
0 - 90% relative humidity

##### Dimensions

4.58 in. H x 3.73 in. W x 1.34 in. D  
(116 x 95 x 34 mm)

##### Weight

7.3 oz. (0.20 kg)

#### RS-602/RS-622 Beltpacks:

##### Program Input

Program input :	Balanced, transformer isolated
Input sensitivity:	-20 dBv to +10 dBv
Frequency response:	50 Hz – 18 Hz, ± 2 dB

##### Connectors

Intercom Line:	
RS-602:	(2) 6-pin XLR-M-F
RS-622:	(1) 6-pin XLR-F

##### Headset:

RS-602:	4-pin XLR-M
RS-622 :	6-pin XLR-M

##### Power Requirements

<b>RS-602/622</b>	
DC Voltage Range:	12-32 volts

##### Environmental

0°C - 70°C (32°F - 158°F)  
0 - 90% relative humidity

##### Dimensions

4.58 in. H x 3.73 in. W x 1.34 in. D  
(116 x 95 x 34 mm)

##### Weight

7.8 oz. (0.22 kg)

#### RS-603/RS-623 Beltpacks:

##### Program Input

Program input:	Balanced, transformer isolated
Input sensitivity:	-20 dBv to +10 dBv
Frequency response:	50 Hz – 18 Hz, ± 2 dB

##### Connectors

Intercom Line:	(2) 3-pin XLR-M-F
Headset:	
RS-603/623:	4-pin XLR-M
RS-603R:	4-pin XLR-F
RS-623R:	5-pin XLR-F

##### Power Requirements

<b>RS-603/623</b>	
DC Voltage Range:	12-32 volts

##### Environmental

0°C - 70°C (32°F - 158°F)  
0 - 90% relative humidity

##### Dimensions

4.58 in. H x 3.73 in. W x 1.34 in. D  
(116 x 95 x 34 mm)

##### Weight

7.8 oz. (0.22 kg)

#### TWC-701/TWC-704

##### Adaptors:

##### Rear Panel Connectors (TWC-701)

Intercom in (2) XLR3F  
TW (1) XLR3M

##### Rear Panel Connectors (TWC-704)

Intercom in (8) XLR3F (2 per channel)  
TW (4) XLR3M (1 per channel)

##### Rear Panel Controls & Indicators (TWC-701)

(1) Reset switch  
(1) Overload LED

##### Rear Panel Controls & Indicators (TWC-704)

(4) Power LED

##### Power Requirements (TWC-701)

Input Voltage:	20-30 VDC
Input Current:	(idle) ≤ 30mA
Current Trip:	1.6A

##### Power Requirements (TWC-704)

Input Voltage:	20-30 VDC
Input Current:	(idle) ≤ 120mA
Current Trip:	1.1A

##### Environmental

32° to 122° F (0° to 50°C)

##### Dimensions (TWC-701)

4 in. W x 2.0 in. H x 5.0 in. D  
(101mm x 51mm x 127 mm)

##### Dimensions (TWC-704)

19 in. W x 1.75 in. H x 7.0 in. D  
(483 mm x 44 mm x 1678mm)

##### Weight

1.1 lbs. (0.503 kg) (TWC-701)  
2.64 lbs (1.2 kg) (TWC-704)

##### Notice About Specifications

While Clear-Com makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.