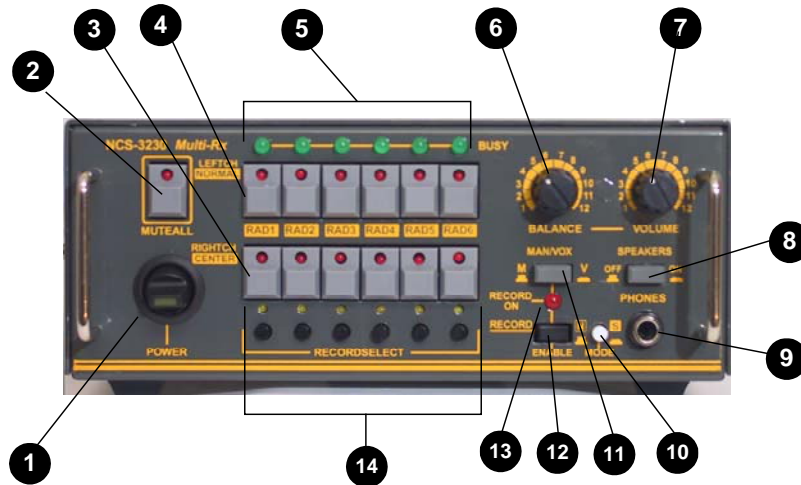


Front Panel Controls and Connectors



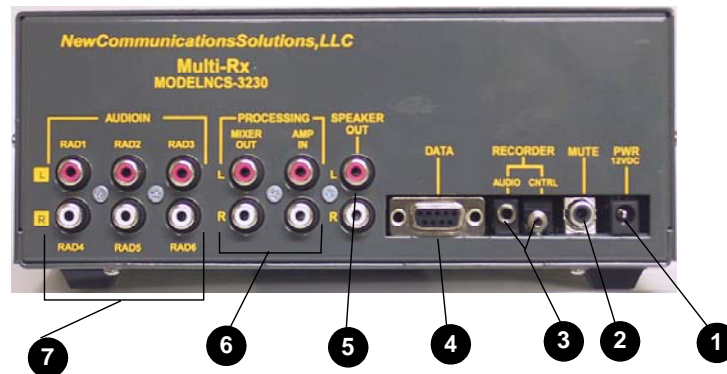
- 1 **Power** On/Off Switch with integral yellow LED indicator.
- 2 **Mute All** – Mutes all radios, but does not mute record audio output.
- 3 **Right Channel** Select (*NORMAL* mode) or Center (*SPATIAL* mode) – In the *NORMAL* mode selects radio(s) for output to the right audio channel speaker. When operating in the *SPATIAL* mode centers the selected radio in the audio field and amplifies audio 3dB.
- 4 **Left Channel** Select (*NORMAL* mode) or Normal (*SPATIAL* mode) – In the *NORMAL* mode selects radio(s) for output to the left audio channel speaker. When operating in the *SPATIAL* mode, places the selected radio(s) in their predetermined position in the audio field.
- 5 **Busy** Lights (green LEDs) – When the audio output from a given radio exceeds a specified threshold the Busy Light for that radio will be illuminated indicating the radio is busy.
- 6 **Balance** Control – Controls the center position of the audio field allowing it to be positioned left or right of center.
- 7 **Volume** Control – Controls volume of both speakers.
- 8 **Speakers On/Off** – Turns external speakers on or off.



NCS-3230 Multi-Rx Specification

- 9 **Phones** Jack – ¼” stereo phone jack. Receive audio is always present allowing simultaneous use of headphones and speakers if desirable.
- 10 **Mode** Select – Used to select *NORMAL* or *SPATIAL* listening modes.
- 11 **Manual/Vox Select** – Selects recorder activation mode. In the Manual position the recorder runs continuously when the Record button (12) is enabled. In the VOX position the recorder will be activated if a radio(s) is selected for recording using the Record Select button(s) and audio is present on the selected radio(s).
- 12 **Record** Enable – The Record Enable controls whether or not the external recorder will be activated. If not enabled the recorder will not be activated in the Manual or VOX activation modes. The Record LED (13) indicates when the recorder is activated.
- 13 **Record On** Indicator (red LED) – Illuminates when the external recorder is activated.
- 14 **Record Select** – There are 6 Record Select buttons (one for each radio position). When one or more radios are selected, the audio for that radio(s) is fed to the Recorder Audio jack on the rear panel. Yellow LEDs indicate which radios are selected for recording. The audio to the recorder is unaffected by other radio select or mute functions.

Rear Panel Connectors



- 1 **PWR 12VDC** – Coaxial power jack for 12 VDC input.
- 2 **Mute** – Mutes all radios on logic low signal from Multi-Switcher or other PTT line.
- 3 **Recorder** –
Audio – 2.5 mm phone jack. Audio out to external recorder (line level).
Cntrl – 3.5 mm phone jack. Recorder activation signal to external recorder.
- 4 **Data** – This connector is used for two purposes:

Selective Mute – There is one input line on this connector for each of the six radios. Selective Mute works in conjunction with the Mute jack to enable you to mute all radios except for one when you key the PTT. See instruction manual for details.

Computer Control of Multi-Rx – Using this function, an external computer can read and set the status of the front panel switches. Note, these signals are TTL/CMOS level and must be converted to RS-232 standard levels in order to connect the Multi-Rx to a computer.
- 5 **Speaker Out** – Phono jacks for connecting left and right speakers. The Multi-Rx was designed for use with 4-16 Ohm speakers.
- 6 **Processing, Mixer Out/Amp In** – These phono jacks are used for externally processing the mixed receive audio and returning the processed audio to the Multi-Rx audio amplifier.
- 7 **Audio In** – 6 phono jacks (RAD 1 – RAD 6) for connecting the speaker out audio from each of up to 6 radios to the Multi-Rx.

NCS-3230, Multi-Rx™ Receive Console

Specifications

General Specifications

Dimensions	3.3" H x 8.3" W x 6.2" D 8.4 cm x 21 cm x 15.8 cm
Weight	2.5 lbs (1.1 kg)
Temperature Range	0° to +50°C
Memory Protection	Radio Selection Switches preserved in non-volatile memory
Power Requirements	+12 to +15 VDC 200 mA avg. / 1A peak current.

Front Panel Controls and Indicators

POWER Switch	Paddle switch with Yellow power LED indicator
MUTE ALL Switch	Pushbutton switch with flashing LED indicator. Mutes all receive audio when activated.
Radio Selection Switches	Pushbutton switches with Red LED indicators. LEDs light when radio selected. <i>Normal Mode:</i> <ul style="list-style-type: none">♦ Top Row – Left Speaker♦ Bottom Row – Right Speaker <i>Spatial Mode:</i> <ul style="list-style-type: none">♦ Top Row – Positions Radio(s) in Audio Field♦ Bottom Row – Centers Radio in Audio Field
Busy Lights	Green LEDs. Approximately 150 mV of audio signal required to light LED
RECORD SELECT Switches	Push-on, Push-off pushbutton switch. When engaged (in) selects radio for output to recorder. Yellow LEDs light to indicate selection.
RECORD ENABLE	Push-on, Push-off pushbutton switch. Enables recording. When OFF (out), no recording can occur.
RECORD ON LED	Red LED. Lights when recorder is running.
MAN/VOX Switch	Push-on, Push-off pushbutton switch. Selects Manual (out) or VOX (in) operation in the record mode.
MODE Switch	Push-on, Push off pushbutton switch. Determines <i>Normal</i> (out) or <i>Spatial</i> (in) mode.
SPEAKERS Switch	Push-on, push-off pushbutton switch. Turns speakers on (in) and speakers off (out)
PHONES Connector	¼ in. (6.4 mm) stereo phone jack.
BALANCE Control	Controls Left/Right speaker balance
VOLUME Control	Controls volume of both audio channels

Rear Panel Connections

AUDIO IN	Six RCA phono Jacks. Accepts audio inputs from radio speaker outputs. Approximately 150 mV required to trigger BUSY light.
PROCESSING	RCA phono jacks. Used for external filtering and other processing of the receive audio. <ul style="list-style-type: none">• AMP IN – Two channel line level input to internal audio amplifier.• MIXER OUT – Two channel line level output from internal mixers.
SPEAKER OUT	RCA phono jacks. Operates with speaker impedances of 4 – 16 Ohms.
DATA	DB-9 female connector. Selective Mute Inputs and Serial Data In/Out (TTL/CMOS levels). Serial Data can be used to control Radio Select switches. (Note: an optional level converter can be installed to convert these levels to RS-232)
RECORDER	<input type="checkbox"/> AUDIO – 3.5 mm phone jack. Line level audio output to recorder. <input type="checkbox"/> CNTRL – 2.5 mm phone jack. Start/Stop recorder control. Dry relay contact, isolated from ground.
MUTE	RCA phono jack. Logic low (~0 VDC) mutes all receive audio except those programmed as Selective Mute.
PWR	Coaxial power connector, 2.1 mm pin, 5.5 mm shell, center pin positive

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