

# Technical Data



**WATKINS-JOHNSON**

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## Multichannel Receiver Family WJ-866X Configuration

Options	Standard Equipment									
	MRS			PRT			PPS		RPS	
	DCT	MCR	MRS	DCT	MCR	PRT	PBC	PPS	PBC	RPS
866X/AUD	NO	YES	UO	NO	YES	STD	YES	UO	YES	UO
866X/BFP	YES	YES	STD <sup>1</sup>	YES	YES	NO	YES	NO	YES	YES
866X/CEPT	NO	YES	UO	NO	YES	UO	YES	UO	YES	UO
WJ-866X/CTS <sup>2</sup>	NO	NO	YES	NO	NO	STD	NO	STD	YES	NO
866X/MSP	NO	YES	UO	NO	YES	UO	YES	UO	YES	UO
866X/GPSR	NO	YES	UO	YES	YES	UO	YES	UO	YES	UO
866X/MR <sup>3</sup>	NO	YES	UO	NO	YES	UO	YES	UO	YES	UO
866X/NBC	NO	NO	YES	NO	NO	STD	NO	YES	YES	STD
866X/PBT	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO
866X/PRE	YES	NO	UO	STD	NO	STD	NO	NO	NO	NO
866X/SCSI	NO	YES	UO	NO	STD	UO	STD	UO	STD	UO
866X/T1	NO	CF	UO	NO	CF	UO	CF	UO	CF	UO
866X/232	NO	STD	UO	NO	STD	UO	STD	UO	STD	UO
866X/BASE-T	NO	CF	UO	NO	CF	UO	CF	UO	CF	UO
RACK SLIDES	YES	YES	UO	YES	YES	NO	NO	NO	YES	YES

- LEGEND:**
- YES** Available for unit configuration
  - NO** NOT available for unit configuration
  - UO** Optional at unit level, not system level
  - STD** Provided as standard component of configuration
  - CF** Contact factory for availability

- NOTES:**
- 1 One WJ-866X/BFP provided as standard component of this configuration
  - 2 The WJ-866X/SCSI option provided as part of option
  - 3 Requires WJ-866X/AUD Option

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WJ-866X OPTIONS

The modular design of the WJ-866X family provides a flexible means of selecting optional accessories to enhance individual application requirements. The matrix on page 1 lists all the options associated with these products, and their applicability to each unit and system. The following table summarizes the capabilities of the individual options listed in the matrix.

Options

Model #	Functions	Physical Characteristics
<b>866X/AUD</b> <b>12-channel Audio Reconstruction</b>	<ul style="list-style-type: none"> <li>• Provides analog audio output signals of 175 to 3850 Hz, from 12 operator-selected voice-grade channels (VGCs)</li> <li>• Allows connection of audio outputs from AUD to external audio monitoring equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- 12-channel audio PC assembly</li> <li>- Internal cable assembly including 25-pin D-type connector mounted in one of two available rear panel rectangular connector slots</li> <li>- External cable assembly with mating 25-pin connector for receiver, and 12 BNC connectors on other end for audio output</li> <li>- Cable plug-marking kit</li> </ul> </li> </ul>
<b>866X/BFP</b> <b>Blank Front Panel</b>	<ul style="list-style-type: none"> <li>• Aids rackmounting of DCT &amp; MCR units into standard 19-in (48.26 cm) equipment rack</li> <li>• 2 attached BFPs create 3.5-in (8.89 cm) half-rack unit for side-by-side mounting with another half-rack unit (i.e., MCR or CTS)</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- 1.75-in (4.44 cm) half-rack unit that attaches to DCT for 3.5-in (8.89 cm) half-rack configuration, or</li> <li>- 1.75-in (4.44 cm) full-rack configuration</li> </ul> </li> <li>• Pretapped holes on sides of BFP aid installation of optional rack slides</li> <li>• BFP weight &amp; dimensions are:                             <ul style="list-style-type: none"> <li>8.32-in (21.13 cm) wide</li> <li>1.710-in (4.34 cm) high</li> <li>15-in (38.1 cm) deep, excluding handles</li> <li>2.5 lbs (1.13 kg)</li> </ul> </li> <li>• 1 BFP standard with each MRS</li> </ul>
<b>866X/CEPT</b> <b>CEPT Formatter</b>	<ul style="list-style-type: none"> <li>• Provides voice-grade data outputs in the form of primary level CEPT PCM stream (2.048 Mbps, 30-channel capacity)</li> <li>• Makes 75 ohm, unbalanced output available</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of CEPT Formatter Assembly &amp; Internal Cable Assembly</li> <li>• Standard BNC connector mounts in one of the two available rear panel circular connector slots</li> </ul>
<b>WJ-866X/CTS</b> <b>Cartridge Tape Subsystem</b>	<ul style="list-style-type: none"> <li>• Stores 5 GB of data - approximately 20 hours of audio &amp; Signal-Related Information (SRI) data</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- High-density cartridge tape drive, with removable 8-mm cartridges</li> <li>- Power supply for tape drive</li> </ul> </li> <li>• Mounts in 3.5-in (8.89 cm) half-rack</li> <li>• Includes 866X/SCSI option</li> </ul>

Model #	Functions	Physical Characteristics
<b>866X/GPSR</b> General-purpose Surveillance Receiver	<ul style="list-style-type: none"> <li>• Enables WJ-866X products to function on command as general-purpose narrowband receivers</li> <li>• Provides:                             <ul style="list-style-type: none"> <li>- 20 to 1000 MHz tuning range in 100-Hz steps</li> <li>- AM, FM, CW, USB, LSB, ISB detection modes</li> <li>- Selectable IF bandwidths of 0.1, 0.2, 0.5, 1.0, 2.0, 3.2, 5.0, 6.4, 8.0, 10.0, 15.0, 20.0, 25.0 &amp; 30.0 kHz</li> <li>- Manual or automatic gain control</li> <li>- CW detection mode with BFO capability, adjustable over <math>\pm 3000</math>-Hz range</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Factory installed firmware only</li> <li>• Additional windows in applications program include:                             <ul style="list-style-type: none"> <li>- IF pan display with 30-kHz display bandwidth</li> <li>- RF spectrum display with lockouts capability</li> </ul> </li> </ul>
<b>866X/MR</b> Microcassette Recorder	<ul style="list-style-type: none"> <li>• Records intercepted voice traffic onto tape for later playback &amp; analysis</li> <li>• Features Variable Control Voice Actuator for hands-free start/stop recording</li> <li>• Senses audio input, then automatically records</li> <li>• If audio input is disabled, recording automatically ceases</li> <li>• Eliminates need for special system setup or reconfiguration, since operating inside PRT carrying case</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- 3 microcassette tape recorders (powered by internal AAA batteries) for up to 5 hours recording time</li> <li>- Interconnecting cable (1 end attaches to AUDs 25-pin output connector, 1 end has 3 mini-microphone jacks to plug into recorders)</li> <li>- Audio inputs to recorders from 3 AUD audio channel outputs</li> </ul> </li> <li>• Requires AUD option</li> </ul>
<b>866X/MSP</b> Master Slave Processor	<ul style="list-style-type: none"> <li>• Enables up to 3 MCRs to pass SRI data &amp; audio between master &amp; slave MCRs</li> </ul>	<ul style="list-style-type: none"> <li>• Data passes via TDM interface bus</li> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- MSP Interface PC Assembly</li> </ul> </li> </ul>
<b>866X/NBC</b> Notebook Computer	<ul style="list-style-type: none"> <li>• Provides hardware &amp; software for local operation</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- Customer-selected laptop computer in carrying case</li> <li>- PS/2-compatible mouse</li> <li>- Standard 9-pin male to 9-pin female RS-232 cable</li> <li>- Convenient, pre-installed applications program software &amp; Windows<sup>™</sup> on hard disk drive</li> </ul> </li> <li>• Installed inside the PRT system carrying case</li> <li>• Contact factory for details</li> </ul>

WJ-866X OPTIONS

Model #	Functions	Physical Characteristics
<b>866X/PBT</b> Portable Battery	<ul style="list-style-type: none"> <li>• Provides alternative, portable power source</li> <li>• Provides approximately 1 hour constant-on operation (depending on actual system use)</li> <li>• Enables totally portable, self-sufficient operating system</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- Sealed, lead-acid, 12-V rechargeable battery (installed in its own carrying case) with interconnecting cables</li> <li>- 12-V battery charger</li> <li>- 220/240 Vac to 120-Vac Converter/Transformer</li> </ul> </li> </ul>
<b>866X/PRE</b> Preamplifier/Splitter	<ul style="list-style-type: none"> <li>• Provides 2 RF inputs to DCT from 1 antenna</li> </ul>	<ul style="list-style-type: none"> <li>• External device</li> <li>• Combines low-noise amplifier &amp; 2-way power divider in 1 package</li> <li>• Connects directly to RF 1 IN &amp; RF 2 IN connectors</li> </ul>
<b>866X/SCSI</b> SCSI Interface Controller	<ul style="list-style-type: none"> <li>• Provides (SCSI-2) compatible interface</li> <li>• Allows storage of audio &amp; SRI data on SCSI-2 compatible storage device such as WJ-866X/CTS</li> </ul>	<ul style="list-style-type: none"> <li>• Supports Sequential Access Device tape drives</li> <li>• Consists of:                             <ul style="list-style-type: none"> <li>- SCSI Interface PC Assembly</li> <li>- Internal cable assembly including SCSI style connector mounted in one of two available rear panel rectangular connector slots</li> </ul> </li> <li>• External cable for interfacing with 866X/CTS</li> </ul>
<b>866X/T1</b> T1 Formatter	<ul style="list-style-type: none"> <li>• Provides standard T1 PCM data stream output containing up to 24 selected VGCs</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of T1 Output Formatter PC Assembly &amp; Internal Cable Assembly</li> <li>• Standard TRIAX connector mounts in one of two available rear panel circular connector slots</li> </ul>
<b>866X/BASE-T</b>	<ul style="list-style-type: none"> <li>• Provides a 10BASE-T TCP/IP compatible Ethernet Interface</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of an Ethernet Remote Control PC Assembly and internal cable assembly with RJ-45 style connector</li> </ul>
<b>866X/232</b>	<ul style="list-style-type: none"> <li>• Provides a rear panel RS-232 interface</li> </ul>	<ul style="list-style-type: none"> <li>• Consists of an internal cable assembly</li> <li>• LEMO style connector mounts in one of two available rear panel circular connector slots</li> <li>• A mating connector is provided as an accessory item</li> </ul>
<b>MCR/RACKSLIDE</b>	<ul style="list-style-type: none"> <li>• Provides rackmount capability for WJ-866X family</li> </ul>	<ul style="list-style-type: none"> <li>• Jonathan-style</li> <li>• Request at time of order</li> </ul>