

Features

Connect a TrueAlert NEWS radio receiver to a Simplex® 4100ES or 4100U Audio Fire Alarm Control Panel:

- Allows information from the National Oceanic and Atmospheric Administration's (NOAA's) "All Hazards" Radio Network to be available at the host control panel for Emergency Communication System (ECS) or Mass Notification System (MNS) broadcasts
- Notice of select NOAA Emergency Alert System (EAS) message receipt are sent to the host panel allowing it to automatically request the full warning message for broadcast over the Emergency Voice Alarm Communications system (manual operation is selectable if preferred)

4907-9101 NEWS Receiver provides:

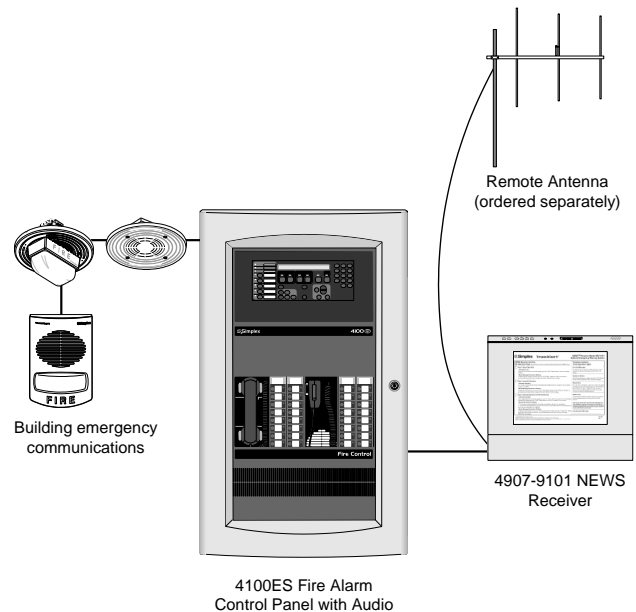
- Decoding of the NOAA EAS/SAME formatted messages directly from broadcast; SAME is Specific Area Message Encoding and incorporates Emergency Alert System information encoding (EAS)
- Message Selection by SAME Event Type and Geographical Area; Selected messages are digitally recorded allowing accurate playback through the Emergency Voice Alarm Communications system
- Seven channel weather radio receiver allowing access to the NOAA Radio transmitter closest to your area
- Receives over 50 warning and alert type messages (refer to page 5 for list)
- Front display controls include Local Speaker, LCD Readout, and LED Status Indicators

Receiver is selectable for three operating modes:

- **Manual Operation** allows an operator to determine whether the received message should be broadcast
- **Automatic Operation** allows the emergency message to be automatically broadcast
- **Automatic Operation with Preview/Cancel** allows an operator to intervene and cancel message broadcast if appropriate to the facility operation procedure

4100ES/4100U Operation details:

- Compatible with either digital or analog 4100ES or 4100U Audio Systems; connection is to an Auxiliary Audio Input Module (ordered separately)
- Standard operation is fire alarm events take precedence and overrides automatic receiver input; Emergency Defend in Place operation can be programmed for automatic operation or manually controlled
- Power is supplied from the host control panel, supplemented by battery on-board the NEWS receiver
- Pre-announcement messages (standard or custom) are available to pre-announce NOAA messages (Note: Requires message chipset #68, included with the supplied instructions CD)



4907-9101 NEWS Receiver Connected to a 4100ES Audio Fire Alarm Control Panel

Description

4907-9101 NEWS Receiver. The 4907-9101 NEWS Receiver was developed specifically to interface to a 4100U Emergency Voice Alarm Communication System. Messages are received from NOAA's National "All Hazards" Radio Network and then the Simplex 4100ES/4100U Emergency Voice Alarm Communications system is notified to alert occupants or emergency response personnel of impending emergencies. With a seven (7) channel NOAA receiver, the NEWS Receiver allows selection of the strongest reception frequency transmitter using its front panel display controls.

The National Emergency Alert System (EAS). Under the direction of Homeland Security, the Federal Communications Commission (FCC), in conjunction with Federal Emergency Management Agency (FEMA) and the National Oceanic and Atmospheric Administration (NOAA), implement the Emergency Alert System (EAS) at the Federal level.

NOAA's All Hazards Radio is a nationwide network of radio stations with over 1000 radio transmitters covering 95% of United States population, broadcasting 24 hours a day, 7 days a week delivering comprehensive emergency notification messaging nationwide. Types of NOAA emergency alert broadcast include; *Natural* (such as tornado, hurricane, flood, or earthquake), *Environmental* (such as chemical release, oil spill, train derailment, or nuclear power plant emergency), and *Public Safety* (such as AMBER alert, 911 outage, or terrorist attack).

– This product is not presently agency listed. Contact your local Simplex product supplier for the latest status.

Emergency Alert Warning Formats

SAME Coding. NOAA's All Hazards Radio transmits SAME (Specific Area Message Encoding) code messages providing detailed emergency alert information. Messages describe the originator, the type and severity of the emergency, the area of the emergency, and include a date and time stamp. It is formatted similar to EAS (Emergency Alert System) coding used by media broadcasters, but includes additional location specific information. Refer to page 5 for the list of NOAA Event Identifier Codes received by the 4190-9007 NEWS Receiver.

Additional Reference

Installation instructions, detailed operating instructions, and additional information on location specific code selection are included in document 579-891, shipped with the product on CD. The front mounted label explains normal operator actions with details for each of the three operating modes (as summarized below). The selected operating mode can be clearly marked on the label after the selection is made.

Detailed NOAA information is available at their website: www.weather.gov/nwr/

Product Selection

Model	Description
4907-9101	NEWS Receiver, includes: power input cable (for 9 VDC from the host control panel); wall mounting hardware, and connectors for antennas specified below; requires modules listed below, antenna, and cable, ordered separately
4100-5156	9 VDC Power Converter; single block size (<i>required</i>)
4100-1240	Auxiliary Audio Input Module, provides four unsupervised inputs; single block size (<i>required</i>)
4100 Series	LED/Switch Modules, <i>select as required per system</i> ; refer to data sheet S4100-0032 for details; Typical uses are to cancel playback, replay last message, and select operating mode (manual or automatic)
4100ES/4100U Audio	Download audio chipset 68 for custom message set for NEWS receiver (included with the supplied instructions CD)
4090-9001	With screw terminals
4090-9051	Encapsulated with wire leads
Individual Addressable Module (IAM), monitors receiver relay output contacts, see data sheet S4090-0001 for details and single gang mounting cover options (<i>required</i>)	

Recommended Antennas and Accessories (select as required per receiver)

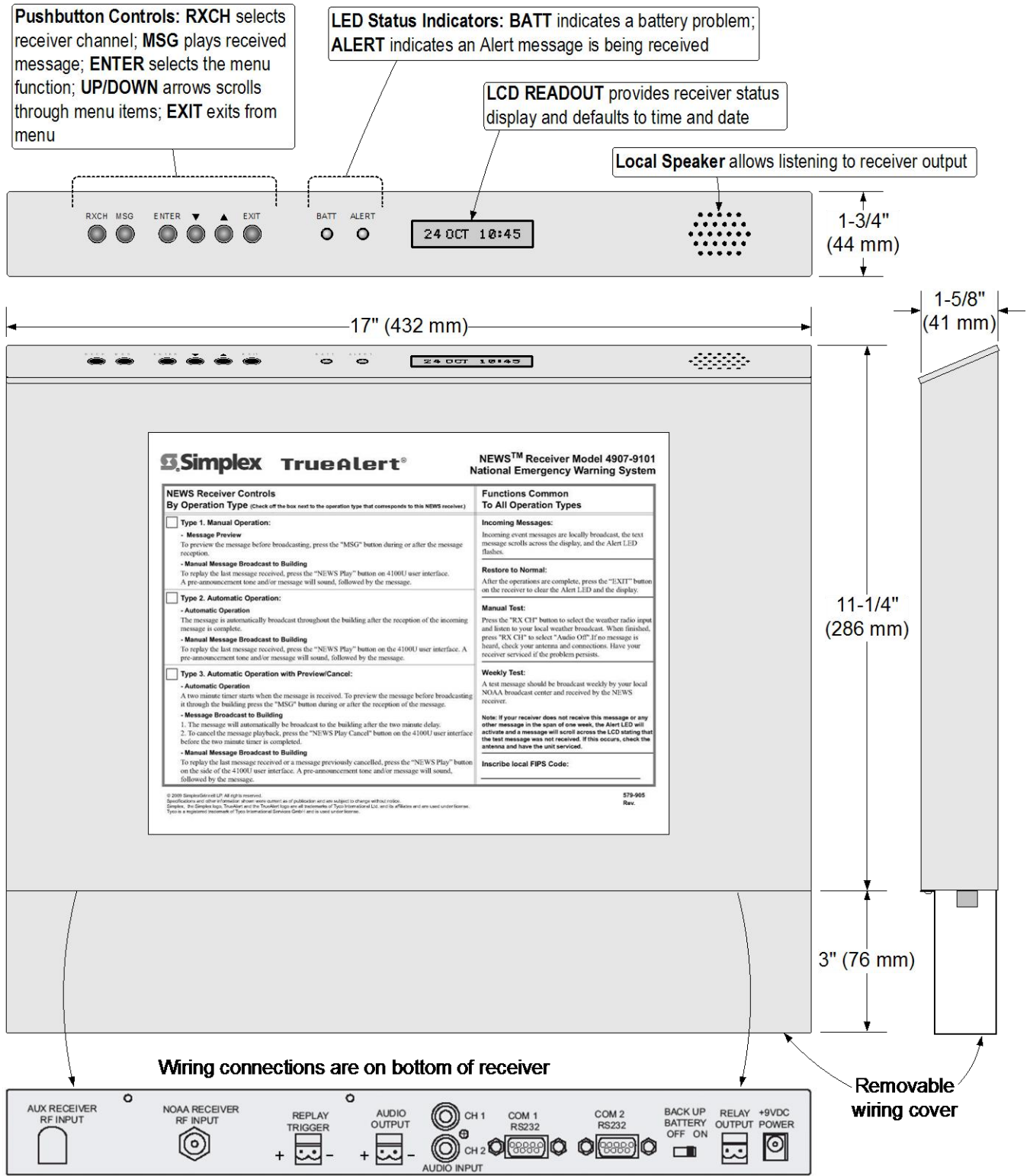
Model*	Description
RA1601	Indoor antenna for high signal strength areas, includes 16' (4.9 m) cable with RCA connector; dimensions = 16" x 3-1/2" x 1" (406 mm x 89 mm x 25.4 mm)
CMTYY3313A-162	Outdoor 3-element Yagi antenna for low signal strength areas, tuned specifically for NOAA frequencies, includes mounting hardware, order mast, cable, and accessories separately; dimensions = 43" x 36-1/4" (1.09 m x 0.92 m)
ROHWM4	4" (102 mm) Stand-off Wall Mount Brackets, upper and lower bracket, galvanized steel, for mast diameters of 1-1/4" (32 mm) to 2-1/4" (57 mm)
ROH160505PHS	Antenna Mast, 5 ft (1.5 m) long, stackable for more length, 16 ga galvanized tubing, 1-1/4" (32 mm) O.D.
ROHTRT36	Roof Mount Tripod Antenna Mount, 36" (0.9 m) high, for up to 1-3/4" (44 mm) diameter mast
CXTA58A-10	10 ft (3.05 m)
CXTA58A-25	25 ft (7.6 m)
CXTA58A-50	50 ft (15.2 m)
CXTA58A-100	100 ft (30.5 m)
CXTA58A-150	150 ft (45.7 m)
RG58/U cable to connect antenna to NEWS receiver with N-Male to N-Male connectors, select length as required	

* Internal Ordering Note: These products can be found in Job Design under OPNEWSRCVR.

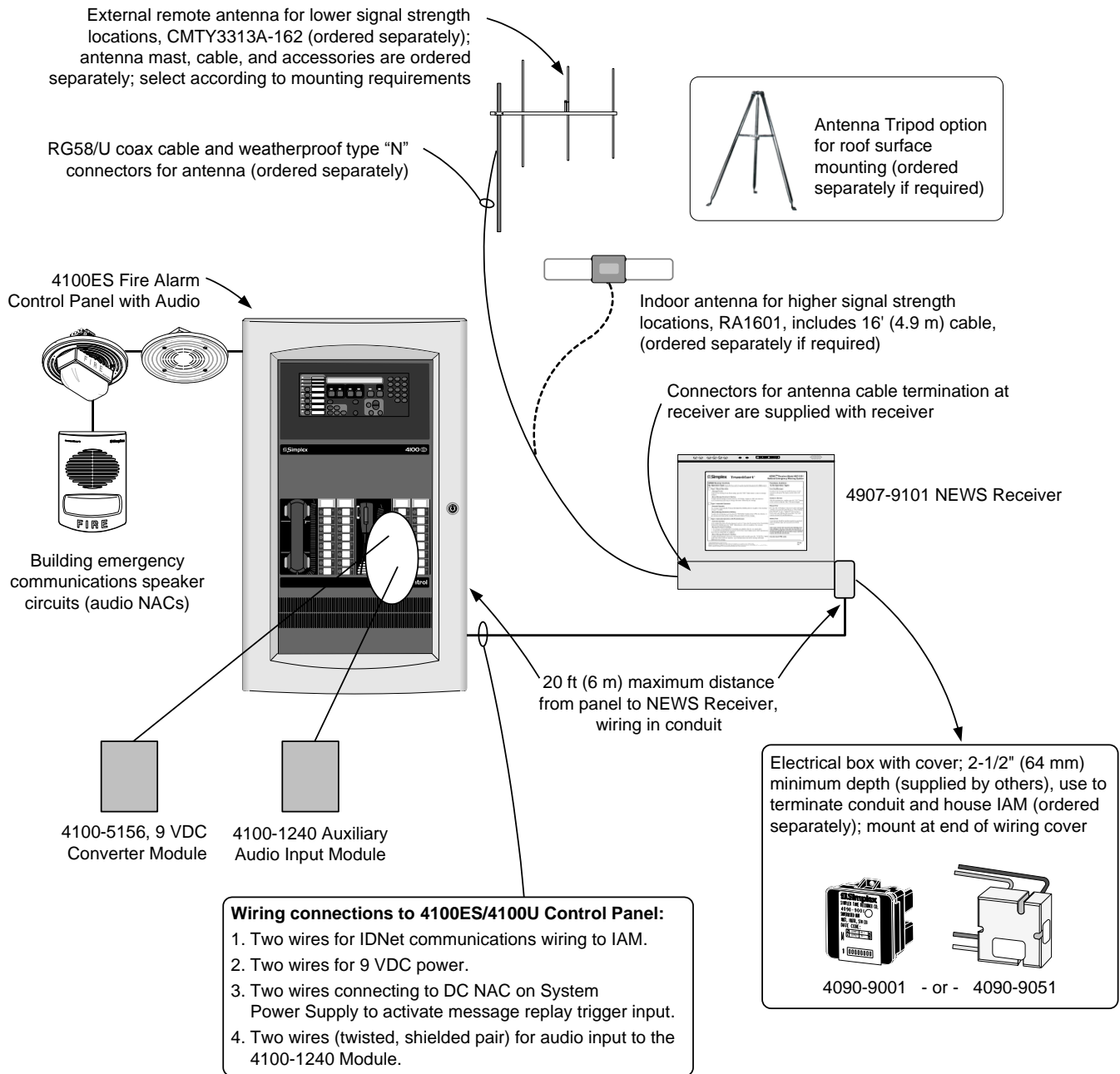
Operation Reference

NEWS Receiver Common Operations	NEWS Receiver Controls by Operation Type
<p>Incoming Event. Incoming event messages are played on the speaker, the text message scrolls on the LCD, and the Alert LED flashes.</p> <p>Return to Normal. After required operations are complete, press the "EXIT" button on the receiver to clear the Alert LED and the display and return to normal.</p> <p>Manual Test. Press the NEWS Receiver "RXCH" button to select the weather radio input and listen to your local weather broadcast. When finished, press "RXCH" to select "Audio Off".</p> <p>Weekly Test. A test message should be broadcast weekly by your local NOAA broadcast transmitter and received by the NEWS receiver. Failure to receive a weekly test will cause the Alert LED to activate and a message will appear on the LCD.</p>	<p>Manual Operation. Preview the message before broadcasting by pressing the NEWS Receiver "MSG" button during or after the message reception. <i>Manually Broadcast</i> the last message received to the building by pressing the "NEWS Play" button on the host panel user interface. A pre-announcement tone and/or message will sound, followed by the message.</p> <p>Automatic Operation. After the complete incoming message is received, the message is automatically broadcast throughout the building.</p> <p>Automatic Operation with Preview/Cancel. A two minute timer starts when the message is received. To preview the message before broadcasting it through the building press the "MSG" button during or after the reception of the message. After a two minute delay, the message will be broadcast to the building. To cancel message playback, press the "NEWS Play Cancel" button on the host panel user interface before the two minute delay is completed.</p>

Operator Controls and Dimension Reference



Interconnection Reference



NOTE: This diagram is for reference only. Modules 4100-5156 and 4100-1240 (ordered with panel or separately) mount internal to the host panel cabinet. Adequate cabinet space is required per standard panel module allocations. A larger cabinet or a close-nippled additional cabinet may be required depending on total module count.

NOAA Event Identifier Codes

Note: Default selection is all codes, NEWS receiver front panel programming allows unwanted codes to be deselected.

Code	Definition	Code	Definition
ADR	Administrative Message	HLS	Hurricane Statement
AVA	Avalanche Watch	LEW	Law Enforcement Warning
AVW	Avalanche Warning	LAE	Local Area Emergency
BZW	Blizzard Warning	NIC	National Information Center Message
CAE	Child Abduction Emergency	NMN	Network Message Notification
CDW	Civil Danger Warning	NPT	National Periodic Test
CEM	Civil Emergency Message	NUW	Nuclear Power Plant Warning
CFA	Coastal Flood Watch	RHW	Radiological Hazard Warning
CFW	Coastal Flood Warning	RMT	Required Monthly Test
DMO	Practice/Demo Warning	RWT	Required Weekly Test
DSW	Dust Storm Warning	SMW	Special Marine Warning
EAN	National Emergency Action Notification	SPS	Special Weather Statement
EAT	National Emergency Action Termination	SPW	Shelter In Place Warning
EQW	Earthquake Warning	SVA	Severe Thunderstorm Watch
EVI	Immediate Evacuation Notice	SVR	Severe Thunderstorm Warning
FFA	Flash Flood Watch	SVS	Severe Weather Statement
FFW	Flash Flood Warning	TOA	Tornado Watch
FFS	Flash Flood Statement	TOE	911 Telephone Outage Emergency
FLA	Flood Watch	TOR	Tornado Warning
FLW	Flood Warning	TRA	Tropical Storm Watch
FLS	Flood Statement	TRW	Tropical Storm Warning
FRW	Fire Warning	TSA	Tsunami Watch
HMW	Hazardous Material Warning	TSW	Tsunami Warning
HWA	High Wind Watch	VOW	Volcano Warning
HWW	High Wind Warning	WSA	Winter Storm Watch
HUA	Hurricane Watch	WSW	Winter Storm Warning
HUW	Hurricane Warning		

Data Sheet Reference for 4100U and IAMs

Subject	Data Sheet
Basic Panel Modules and Accessories	S4100-0031
LED/Switch Modules	S4100-0032
4100ES Audio/Phone Modules	S4100-0034
InfoAlarm Command Center	S4100-0045
Supervised IAMs	S4090-0001

Specifications

Electrical Requirements

Receiver Voltage	9 VDC supplied from 4100-5156 Power Converter Module mounted in host 4100ES/4100U control panel
4100-5156, 9 VDC Converter Module Input Current	400 mA maximum
4100-1204, Auxiliary Audio Input Module Current	10 mA supervisory, 50 mA alarm/active
4090-9011 or 4090-9051 IAM	one IDNet address, IDNet communications powered

Front Panel

Display	16 character LCD with back lighting
LED indicators	"Message Received," Weather Radio Receiver Signal Level, and On-Board Battery Level
Speaker	Front panel mount
Menu functions	Display Banner Messages, Message Review, Set Speaker Level, Speaker Select Weather Radio, Channel, Set Date/Time, and LCD Contrast Level

Inputs, Rear Panel

Antenna input	F type connection, 75 Ω ; two connectors supplied, one N-female to F connector for remote (outside mount) antenna, one RCA to F connector for local antenna
Audio input	Three inputs with RCA phone jacks, -10 dBm \pm 10 dB, unbalanced
RS-232	9-pin D connector for CPU interface message signs at distances of up to 1500 ft
Audio output	600 Ω balanced audio, 0 dBm
Relay contact output	Connects to monitoring input of IAM, indicates receipt of alert message

NOAA Weather Radio Receiver Specifications

Channels	Seven frequency synthesized channels: 162.400, 162.425, 162.450, 162.475, 162.500, 162.525, 162.550 MHz
Sensitivity	2 μ V for 12 dB SINAD
Modulation	\pm 5 kHz deviation
Image rejection	60 db or greater
IF rejection	70 db or greater

Physical and Environmental

Receiver dimensions, with wiring cover included (refer to dimension details on page 3)	17" W x 14-1/4" H x 1-5/8" D (432 mm x 362 mm x 41 mm)
Operating Temperature	32° to 120°F (0° to 49° C)
Operating Humidity	Up to 93% RH, non-condensing @ 90° F (32° C) maximum

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