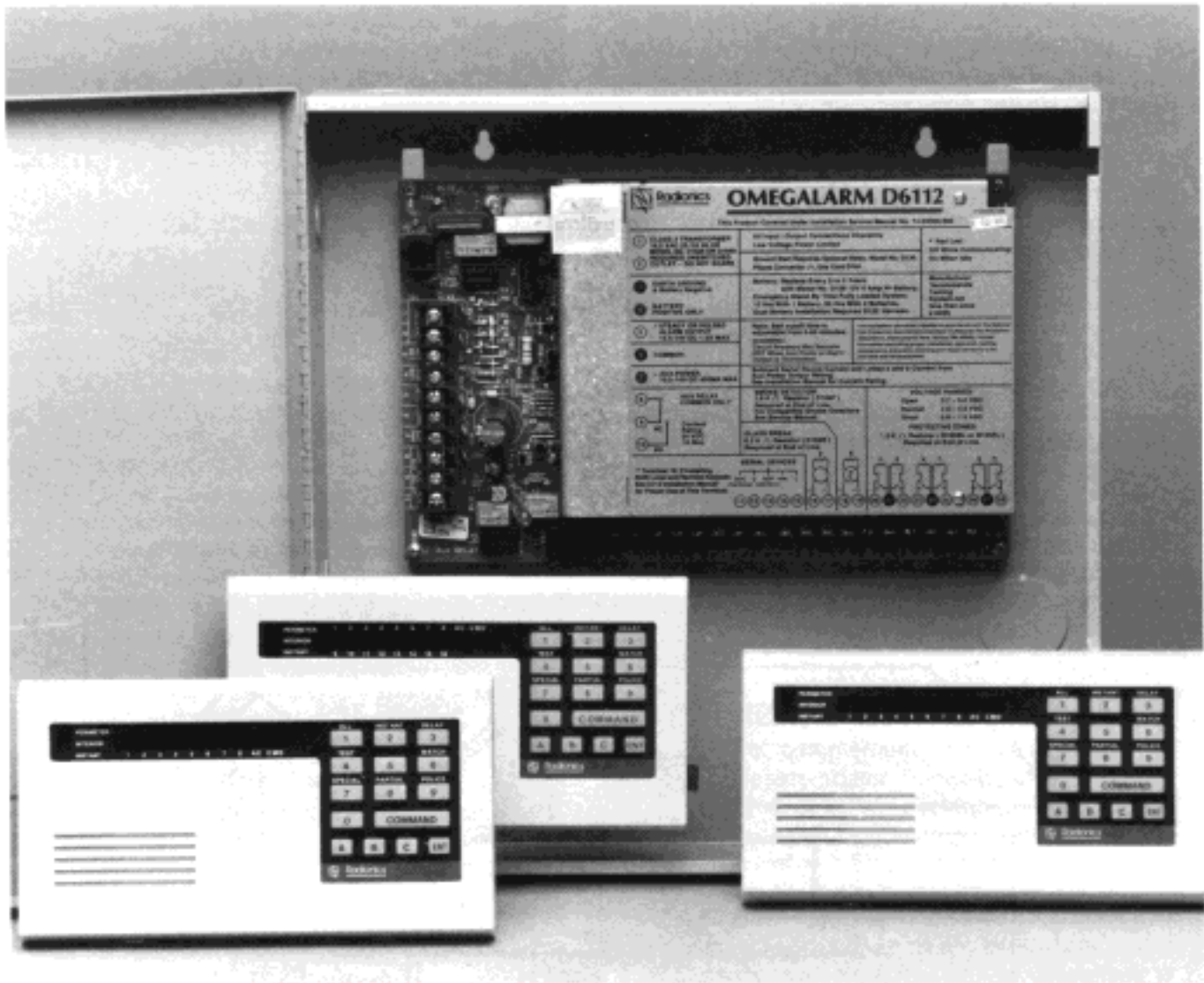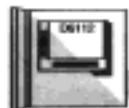# R A D I O N I C S

Omegalarm D6112 Control/Communicator
Specifications Sheet

D6112 Control/Communicator and (left to right) D620, D626, D630 Command Centers

Description

The D6112 is an integrated Control/Communicator. The D6112 has eight end-of-line resistor supervised hardwire protective zones — six standard programmable zones; one nominal 12 VDC powered zone optimized for two-wire smoke detectors, and one nominal 12 VDC powered zone optimized for two-wire glass-break detectors. In addition to the eight hardwire zones, two software programmable zones can be used to initiate special signals (such as panic or duress) from a command center. A duress code is also available from any command center. Up to 450 mA of current is available for auxiliary 12 VDC powered devices, as well as 1.5 A at 10.2 to 14 VDC for alarm annunciating devices. The D6112 has been designed and rigorously tested to withstand radio frequency interference and high voltage surges common to lightning areas.

The D6112's built-in communicator has the ability to report to two telephone numbers using two separately programmable reporting formats. The D6112 can even report **two separate account numbers**. This feature enables the security system to be split into two independent systems (referred to as accounts). Both accounts are supervised by the D6112, however each account is controlled individually. Each account is armed and disarmed independently; each account has its own arming combinations, its own reporting parameters, etc.

Several options of the D6112 system can be divided between the two accounts. A sample of these options are: total number of combinations (seven), total number of command centers and zone expansion centers (four), and total number of reporting alarm zones (sixteen). Sixteen reporting zones are available by combining the D6112 with one or more zone expansion accessories.
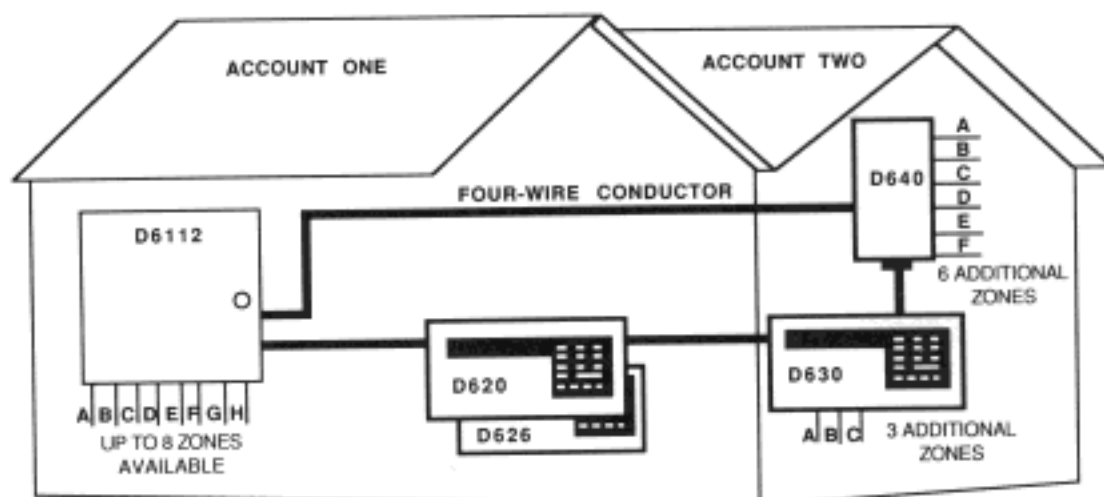
D6112 Accessories

The D6112 Control/Communicator can be enhanced with several optional modules. The D6112 communicates to *command centers* and *zone expansion centers* through a four-conductor cable. Up to four of these serial data devices can be connected to the serial data cable in any one installation. Through this connection, the D6112 can determine with which device it is exchanging data. This enables the D6112 to annunciate different account status displays to the proper command centers for each account — and all devices are connected by the same four wires.

Two Independent Accounts from One System

As a two-account system, every protective zone in the D6112 security system is programmed to be assigned to an account (either Account #1 or Account #2). Every command center in the system is also assigned to an account. When a combination is entered into a command center, only those zones assigned to the account number with the command center are armed and disarmed. With the D6112 Control/Communicator, zones are no longer limited by hardware devices – now software programming provides you with design and installation freedom. The D6112 can be enhanced with remote zone expander modules: the D640 Zone Expansion Center and the D630 Independent Command Center (with zone expansion) give you more individually programmed hardwire zones.
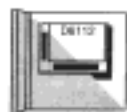

Any combination of command centers and the (optional) D640 Zone Expansion Center allows the D6112 to supervise two independent accounts. An individual remote zone can report through its respective account number and one of the D6112's eight available zones.

The **D620** and **D626 Command Centers** are aesthetically pleasing, low profile, surface mount units. The keypad is backlighted, and system status is displayed with indicator LEDs for Perimeter Arm, Interior Arm, AC Power, and Command Mode. Individual zone status LEDs annunciate the condition of a maximum of eight protective zones on the D620, and 16 protective zones on the D626. Three function keys can be programmed to perform any system command function (other than arming) with the touch of only one key, eliminating the need to memorize command codes.

The **D630 Independent Command Center** provides the security system with *three additional* end-of-line resistor supervised hardwire protective zones, as well as a digital command center. The protective zones connected to the D630 report to the D6112 individually, and can be controlled from any command center assigned to the same account as the zone. The D630 Command Center is identical in appearance to, and includes all of the features of, the D620 Command Center.

The **D640 Zone Expansion Center** gives the system six more hardwire protective zones. (The D6112 can report up to sixteen alarm zones.) Although the zones are physically attached to the D640, they report to the D6112 individually. Each of these remote protective zones are programmed at the D6112 for response characteristics and arming parameters.

The **MultiLink C8174 Encoder Module** provides an RF link for transmitting backup signals from the D6112 Control/Communicator, and monitors the phone line for increased system security. The C8174 provides two *summary* reports: one from the D6112 burglary bell output, and one from the D6112 auxiliary relay (fire bell) output. The Encoder Module also sends automatic test signals, providing an extra safeguard for your system.

Basic Access Control

The D6112 has a programmable auxiliary relay output which can be used for simple access control, or other applications. The relay can be activated by an alarm, or with any of the seven programmable combinations that you choose.

Two Wire Devices

The D6112 has two special protective zone inputs which supply 10.2 to 14 VDC to detection devices. The amperage supplied to detection devices will vary for each zone. These special zone inputs eliminate the need for interface equipment between the control panel and detection devices. Both zones can be reset from any system command center.

Zone A of the D6112 is a fully programmable two-wire zone input which is optimized for glass-break detectors. Up to ten glass break detectors (such as I.E.I. model #725L) can be connected to this zone. Any type of detector switch, which is specified to operate with voltage input of 10.2 to 14.5 VDC, current input of 1mA idle and 20mA alarm, and with an 8.2k-ohm end-of-line resistor can be connected to this zone. If using a 12 VDC device other than the recommended I.E.I. glass-break detectors, verify that the switch operates within these specifications.

Zone B of the D6112 is a fully programmable two-wire zone input which is optimized for smoke and heat detectors. Up to ten smoke detectors can be installed with heat detectors on this zone. Smoke and heat detectors cannot be combined with other types of detection devices on this zone. To be in compliance with U.L. 985 and NFPA 74, only smoke detectors shown on Radionics Technogram 73-05508-000 can be used with this panel. **NOTE**: For Household Fire Alarm applications, smoke and heat detectors can only be placed on *zone B*.

Programming

Programming the D6112 security system is accomplished with the Radionics D5100 Bar Code Programmer. This is the same programmer that is used with the D8112 Control/ Communicator and the D6500 Security Receiver.

An innovative technique of the D6112 Control/ Communicator is the way in which the product handler is designed. The 6112:MAIN Product Handler is arranged in nine different sections, called "modules." Each module contains program items which relate to a specific function of the D6112 security system. Programming this system, and reviewing and accessing entries is simple and fast.

Remote Account Manager

To complement the D6112 Control/ Communicator, Radionics offers a remote programming package. The Remote Account Manager (R.A.M.) provides a new dimension to the security industry. With the R.A.M., D4112, D6112 and D8112 security systems can be programmed and armed right from a central station or your customer service office. Change programs any time — any part of the program can be edited. The R.A.M. allows you to perform remote system diagnostics, and troubleshoot a system over the telephone line. If the system cannot be corrected over the phone, selectively shunt out the problem zone until your service team can respond. The Radionics Remote Account Manager — offers new office and marketing applications for the progressive security company.

Specifications

UL Listings: The D6112 is UL listed for Central Station Grade A (with a D127 Reversing Relay), Grade B, and Grade C Burglary Alarm, Digital Police Connection, Local Grade A Burglary Alarm, and Household Burglary Alarm applications. Install at least one D620, D626, or D630 Command Center for UL certification. The D6112 is U.L. listed and California State Fire Marshal approved for Household Fire Alarm applications (NFPA 74).

Enclosures:

D6103 (included with unit)
Construction: 18 gauge door, 20 gauge base; cold rolled steel. Color: light gray. Outer dimensions: height: 14.25", width: 14.25", depth: 3".

D8108A Attack Resistant Enclosure (for UL certificated Local, Central Station, Police Connected Burglary Alarm applications). Used with a D6112M. Construction: 18 gauge cold rolled steel. Color: light gray. Outer dimensions: height: 16", width: 16", depth: 3.5".

Primary Power:
16.5 VAC, 25 VA Class 2 plug-in transformer (supplied with the unit).

Secondary Power:
12 VDC, 6 Amp-hour rechargeable lead acid battery (not included).

Charging Circuit: 13.6 VDC trickle charge.

Voltage Outputs:
Auxiliary Power: Nominal 12 VDC at 450 mA continuous output. Circuit protected by a circuit breaker.

Alarm Output: Nominal 12 VDC at 1.5 A on alarm. Steady or pulsed output programmable. *For Residential Fire (NFPA 74) it is recommended that you limit your alarm power output to 300 mA.*

Powered Zone Outputs: Nominal 12 VDC, current supplied by auxiliary power supply.
Loop A: Idle: 1mA, Maximum: 20mA
Loop B: Idle: 20mA, Maximum: 65mA

Current Requirements:
D6112 Control/Communicator with no load (this current is not sourced by the Auxiliary Power):
Idle: 75 mA, Transmitting: 150 mA

D620 Command Center:
Idle: 50 mA, Maximum: 85 mA

D626 Command Center:
Idle: 60 mA, Maximum: 120 mA

D630 Independent Command Center:
Idle: 60 mA, Maximum: 90 mA

D640 Zone Expansion Center:
Idle: 45 mA, Maximum: 60 mA

Data Transmission Format:
Programmable for Radionics Omegalarm formats (Pulse, BFSK, and Modem II), and most major brands of receivers.

Command Centers and Zone Expansion Centers:
Four-conductor serial cable wiring to remote command centers and zone expansion centers. Compatible serial data devices include the D620, and D626, Command Centers and D630 Command Center (with zone expansion), and the D640 Zone Expansion Center.

Telco Connections:
RJ38X jack supervisory connection provides full line seizure and conforms with FCC part 68 requirements.

Protective Circuits:
All hardwire zones are fully supervised using end-of-line resistors. Detection devices must be normally open and/or normally closed dry contact switches for six programmable zones. Two loops allow two-wire powered devices to be installed in addition to normally open and normally closed switches.

Programming:
The D6112 Control/Communicator is programmed with the Radionics D5100 Bar Code Programmer. The D5100 Programmer must contain the appropriate product handler for the D6112. Remote programming with the Remote Account Manager is also available.

RFI/Lightning Transient Protection:
MOVs protect all input and output connections. Spark gaps supply additional protection. Transient tested to ± 6 kV.

D6112 System Command Functions:
The following functions are programmable and can be initiated from a remote command center in the D6112 security system:

COMMAND	1	Master Arm an Account
COMMAND	2	Perimeter Arm (No Delay)
COMMAND	3	Perimeter Arm with Delay
COMMAND	4	Reset Sounders, Alarm Memory
COMMAND	41	Transmit Test Report
COMMAND	42	Transmit System Status Report
COMMAND	43	Enable Remote Account Management
COMMAND	44	Local System Test Mode
COMMAND	47	Reset Detectors
COMMAND	5	Personal Passcode Change
COMMAND	6	Perimeter Watch Mode
COMMAND	7	Special Alert
COMMAND	8	Partial Perimeter Arm
COMMAND	9	Police Alert
COMMAND	0	Selective Zone Shunting

Other Features of the Command Centers:
Duress Passcode and Force Arming