



(ACP-300, ACP-500 & ACP-900)

Programming Manual

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The ACP can be easily tailored to fit the needs of individual organizations or departments.

A wide variety of remote site information systems can be accessed, and with its register programs, the system functions can be configured to meet the specifications of both calling and receiving modems and long distance switching time. By utilizing programmable security codes (up to 7 digits), 35 million possible combinations of codes prevent unauthorized access to the data devices.

ACP GENERAL OPERATION

The ACP's routing function is based on DTMF tone detection. When a call is placed to the remote location, the ACP detects the phone company's ringing voltage, goes off hook (answers) and begins a preliminary screening process.

During this time, the ACP is looking for DTMF tone based routing instructions. For instance, if the ACP hears the industry standard CNG tone generated by a calling Fax, the call is immediately and automatically routed to the connected fax machine without disturbing the receiving party, ringing attached phones or ringing other attached devices.

Each device port of the ACP has its own DTMF security code that can be used to protect any devices connected to the ports from unauthorized access. Each separate security code can be programmed to any number up to 7 digits, including the * and # characters found on the telephone key pad. During an Incoming call, if the ACP detects the DTMF access code for a device port, the call is then automatically routed to the correct device.

In the absence of Fax tones or security codes, the ACP begins to ring the call through to its default port (Device 1).

Outgoing calls can be placed from any device port as if it were attached to a dedicated line. Only one device at a time can actively use the telephone line.

When the line is in use by one device, other devices attempting to access the line for an outgoing call will receive a busy signal. With special programming, this feature can be overridden in an emergency situation where an outgoing call must be placed quickly. (*Reference Register 07 & 08*)

7 SEGMENT DISPLAY – Displays the number of the Device Port in use or being addressed. Also will display register values when reading values from memory.

ACP PROGRAM REGISTERS

The ACP has been designed to perform several operations which are integral to the proper function of your total communications system. The operations are controlled by programmable information which is stored in files called "registers".

Each register contains enough memory to hold factory preset default values and "custom" values that allow the ACP to operate to your specifications. The following is a short description of each register function, program capacity and factory preset default values.

REGISTER 01 - Mode Flags

This register controls 8 features or operating modes performed by the ACP. Each "flag" or feature can be turned on/off and is programmed as a string of bit information. Zero (0) denotes "off" and one (1) denotes "on".

When programming this register, you must enter all Flag (Bit) values.

The Mode Flags are factory preset to the following:

Flag 1 (Bit7) Caller ID Store and Forward 1 (on)

CID will be captured when unit answers. CID data will be sent 1 time, after the first ring, when a device port is addressed.

Flag 2 (Bit 6) Fax Tone Detect to Device 2 1 (on)

If fax tone is detected, call will be transferred to device 2.

Flag 3 (Bit 5) Night Watch Mode 0 (off)

Allows calls to automatically be transferred to the specified port if not answered within a certain number of rings.

Flag 4 (Bit 4) Additional Detect Time 0 (off)

Increases the time in which tones can be detected before ringing the default port by 4 seconds

Flag 5 (Bit 3) Protected Hook Flash 0 (off)

For any KSU that does not allow DTMF once a call is answered.

Flag 6 (Bit 2) Busy Signal 1 (on)

Determines if a device trying to access the line when the line is already in use will hear a busy tone or dead air.

Flag 7 (Bit 1) Enable Multi-Port Polling 0 (off) Allows transfer to another device when communication with the first device addressed is complete.

Flag 8 (Bit 0) Night Watch Mode to Device 3 0 (off)

Determines if night watch transfers are transferred to device 3.
(Default night watch port is device 2)

The operation modes (Flags) can be programmed to meet the specifications that your system requires to function optimally.

REGISTER 02 - Cadence On Time

This register can range from 1 to 6 in one-half seconds and controls the amount of "ring" time in the ring cadence, Factory preset to 4 (2 seconds).

REGISTER 03- Cadence Off Time

This register can range from 1 to 15 in one-half seconds and controls the length of silent time between each ring, Factory preset to 8 (4 seconds).

REGISTER 04 - Maximum Number of Rings to a Device

This register can range from 1 to 99 and controls the amount of rings sent to a device port. Factory preset to 8 rings.

REGISTER 05 - Night Watch Mode Trip Rings

This register contains the number of rings that are required to trip the Night Watch Mode function, After an incoming call has been screened, the number of rings to the phone port are counted, and if the phone is not answered in "X" rings, this call and all future calls will be diverted to the Device port 2. This register can range from 1 to 15. Factory preset is 5 rings.

REGISTER 06 - Night Watch Mode Rings

This Register contains the number of rings to the phone device port after Night Watch Mode (Register 05) has been activated. This number is usually less than register 05 but can range from 1 to 15. Factory preset is 2 rings.

REGISTER 07 – Emergency Barge In

This register contains the mask that determines if Devices 1, 2, 3, and 4 can barge in and gain access to the telephone line by going off-hook during a call. The four mask bits can be set to any combination of values, allowing all, some, or none of Devices 1 through 4 access to the line during an emergency or to just have priority.

When programming this register, you must enter all Flag (Bit) values. The flags are preset to the following: Flag 1 (Bit 3) Device 4 Barge-in Mask 0 (off)
Flag 2 (Bit 2) Device 3 Barge-in Mask 0 (off)
Flag 3 (Bit 1) Device 2 Barge-in Mask 0 (off)
Flag 4 (Bit 0) Device 1 Barge-in Mask 0 (off)

Register 8 must also be set to a positive number to activate barge-in.

REGISTER 08 - Barge-In Time

This register contains the amount of time that a telephone receiver must be held off-hook to "barge-in" on a call. The range of this register is 0 (off) to 15 with a 2 second multiplier for each digit. Factory preset to 0 (off).

REGISTER 09 - Security Programming Time Window

This register contains the number of minutes that the ACP will accept the programming code once power has been applied to the unit. The range of this register is 0 to 15.

Factory preset to 0 (allows programming at all times).

REGISTER 10 - Seizure Time

This register contains the maximum number of seconds the ACP will hold the phone line, during a multiple polling sequence after a device has been disconnected. This register ranges from 10 to 99. Factory preset to 25 (no ring back is provided to caller during this time).

(Note: ACP-9 utilizes Registers 11-15 plus 26-29. ACP-5 uses Registers 11-15, and ACP-3 utilizes Registers only 11-13 for Device Codes.

REGISTER 11 - Security Access Code for Device Port 1

Contains the security access code for device port 1. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 11.

REGISTER 12 - Security Access Code for Device Port 2

Contains the security access code for device port 2. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 22.

REGISTER 13 - Security Access Code for Device Port 3

Contains the security access code for device port 3. This register holds up to 7 digits ranging from 0 to 9, ' and #. Factory preset to 33

REGISTER 14 - Security Access Code for Device Port 4

Contains the security access code for device port 4. This register holds up to 7 digits ranging from 0 to 9, " and #. Factory preset to 44.

REGISTER 15 Security Access Code for Device Port 5

Contains the security access code for device port 5. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 55.

REGISTER 16 - Multiple Polling Code

This register contains the multiple polling code (MPC). The MPC should be placed at the beginning or end of a security access code. After a device has completed its communication and if the correct MPC is detected, the ACP will seize the line. This process allows multiple polling with one call. The register must contain two digits. Factory preset to ##.

REGISTER 26 Security Access Code for Device Port 6

Contains the security access code for device port 6. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 66.

REGISTER 27 Security Access Code for Device Port 7

Contains the security access code for device port 7. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 77.

REGISTER 28 Security Access Code for Device Port 8

Contains the security access code for device port 8. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 88.

REGISTER 29 Security Access Code for Device Port 9

Contains the security access code for device port 9. This register holds up to 7 digits ranging from 0 to 9, * and #. Factory preset to 99.

*WARNING: For registers 11 through 15 or 26 through 29, DO NOT program any of the security access codes to segments of the programming code (**7764#)*

TO ENTER PROGRAMMING MODE

To enter programming mode, pick up the receiver of the phone that is plugged into device port 1 and dial **7764#. After dialing the string, 3 quick high beeps should be heard. This affirms entry into the programming menu.

To program individual registers, press the register number you wish to program and the desired digits immediately in a contiguous string (as an example: 023 to set register 02 to a value of 3). If an error in entry is detected, a single low pitch beep will be heard followed by a short space, then 3 quick high beeps. The 3 quick high beeps tell you to proceed.

TO RESET ALL REGISTER VALUES TO FACTORY PRESET

Press 60 while in programming mode to reset all registers to factory defaults.

TO READ VALUES FROM MEMORY

To read all values, press 99 on your telephone key pad. To read the value of a single register, press * and the two-digit register number.

TO WRITE PROGRAMS TO MEMORY

Press 80 on your telephone key pad. This should always be done when you are satisfied with the information you have programmed.

TO EXIT PROGRAMMING MODE

Press 90 on your telephone key pad.

IMPORTANT: The ACP *MUST* be the first device on the phone to insure accurate routing. In a rollover sequence, install the ACP on the last line of rollover.

Note: Device port #2 is the default fax port (can be used as a modem port).

ACP SERIES 2.0 TECHNICAL SPECIFICATIONS

<p>Model Number ACP-300; ACP-500; ACP-900</p> <p><i>Input Power Requirements</i> At AC Transformer: 100-240 Volts AC , 50-60 Hz At Power Jack on ACP: 12-15 Volts DC (Center pin positive) Grounded power supply recommended</p> <p><i>Power Consumption:</i> (12VDC Input) 4 Watts</p> <p><i>Power Consumption at standby:</i> (12VDC Input) ≈ 2.5 Watts</p> <p><i>CO Interface</i> Ringer Equivalence Number: 1.1B Input Ring Detection: 50-150 VAC, 15-68 Hz</p> <p>Physical: 6.3" W x 9.5" D x 1.4" H, 1 lb Operating Temperature: -20°F to 120°F</p>	<p><i>Device Interface</i> Battery: -38 Volts DC to all ports Off-Hook Detection: 8-150 mA Ring Generator Frequency: 33 Hz</p> <p>Waveform: Sinusoidal</p> <p><i>Following values are with 12VDC input</i> (Values increase with 14/15 VDC input) Ringing No Load: Approximately 105 Volts AC Ringing 8K Ohm Imp. (REN1.0): Approx 90 Volts AC Ringing 4K Ohm Imp. (REN2.0): Approx 78 Volts AC Ringing 2.7K Ohm Imp. (REN3.0): Approx 68 Volts AC</p> <p>Warranty: 2 Year Limited FCC Registration# GK7USA-73200-KX-N</p>
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