



DEPENDABLE EMERGENCY COMMUNICATIONS

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—A—
HALMA
GROUP
COMPANY

A712

SMALL TELEPHONE SYSTEM
USING A LINE SHARING SWITCH
INSTALLATION AND OPERATION

A712 Installation and Operation

The A712 is a small telephone system using either one or two A781 Line Sharing Switches (LSS) mounted on an A705 Power and Distribution Module. Each of the A781 LSS units is capable of connecting any one of up to 8 internal extensions to an outside telephone line from a Central Office, PBX or Keysystem. The A712-1 contains one A781 and Power and Distribution for connecting any one of 8 internal phones to one telephone line. The A712-2 contains two A781 units and Power and Distribution for connecting two groups of 8 phones to two telephone lines.

ITEMS THAT MAKE UP AN INSTALLATION:

- (1) An A712 control unit consisting of one A781 (model A712-1) or two A781's (model A712-2) mounted on an A705 Power and Distribution Module.
- (1) A screwdriver for the quick-connect connectors on the power and distribution module.
- (1) Document package of EMS product information and instructions.

OVERALL SYSTEM (SEE DRAWING SD9908-4C)

This small telephone system typically consists of two major components. They are the remotely located Emergency/Assistance Telephones and the centrally located A712 Control Unit. Calls placed by pressing the push button on an Emergency/Assistance Telephone are connected through the A712 to an outside telephone line to a Central Office, PBX or Keysystem whereupon the Emergency/Assistance Telephone dials the preprogrammed number of the phone to be reached. If the outside telephone line is in use, any other Emergency/Assistance Telephone going off hook will receive a busy signal and will hang up and dial again. Any external telephone that can call the outside line of the A712 can dial directly to any one of the internal extensions.

All wiring to each Emergency/Assistance Telephone is from the A705 power and distribution chassis, which combines the telephone signals with power in a convenient quick-connect connector area. The Central Office Lines are connected to the input jack of the A781 unit (s).

INTERCONNECT WIRING

All interconnection wiring between each Emergency/Assistance Telephone, and the A712 control unit should be 2 pair, 22AWG or larger. The distance should be no longer than 1000 feet with 22 AWG or 2000 feet with 19 AWG. Please refer to your local codes for appropriate wiring specifications. The wiring should be color coded so that each wire and each pair can be identified. The two wires in pair 1 that connect to each Emergency/Assistance Telephone should be identified as **(T)** and **(R)**. The two wires in pair 2 that connect to each Emergency/Assistance Telephone should be identified as **(+)** and **(-)**. **NOTE: Polarity Counts!**

WIRING TO THE EMERGENCY/ASSISTANCE TELEPHONES

1. **Incoming wire** - Typically, a mounting enclosure and an adhesive backed modular wall jack with a power pigtail along with a modular cord have been provided with each Emergency/Assistance Telephone. Fasten the modular wall jack to the back of the wall box with the modular connector facing to the left. Take the incoming pair previously designated **T** and **R** and wire the **T** wire to the **grn** screw terminal. Wire the **R** wire to the **red** screw terminal. Take the incoming pair previously designated **+ -** and wire the **+** wire to the screw terminal designated **yel**. Wire the **-** wire to the **blk** screw terminal.
NOTE: Polarity Counts!
2. **Wires to the Emergency/Assistance Telephone** – Connect the supplied modular cord between the modular wall jack and the modular jack on the back of the telephone. Connect the three-prong power pigtail from the modular wall jack to the mating connector on the back of the telephone. Leave the battery switch on the back of the telephone turned off. This is only used in special situations. Secure the telephone to its mounting case while making sure that no wires are crushed.

INSTALLATION AT THE A712 CONTROL UNIT END

1. **Mounting the A712 Control Unit** – Locate the unit in a dry place with access to 110-120VAC. Provide enough room around the unit for incoming wiring. There are 4 keyhole-shaped mounting holes on the unit. Use them as a template for marking the wall. If mounting on a wall that may sweat (masonry, etc.), use an intermediate plywood panel to mount the unit. The unit is mounted with the arrow on the front pointing up.
2. **Wiring the incoming lines from the Emergency/Assistance Phones** - All connections to the A705 are through two-tiered, quick-connect screwdriver activated connectors. A screwdriver is pushed into the slot above the connection, the stripped wire is pushed into the connector and the screwdriver is removed. Removing the screwdriver locks the wire in place. The upper tier of each connector is used for power (+/ -) and the lower tier is used for T - R. The connector layout and phone extension numbers are identified in drawing SD9908-4B. Wire the Emergency/Assistance Telephones beginning with extension 10 of the connectors. Take the previously designated incoming T-R pair from the first Emergency/Assistance Telephone and connect the **T** wire to the **T** quick-connect contact and the **R** wire to the **R** quick-connect contact. Take the previously designated incoming **+ -** pair from the first Emergency/Assistance Telephone and connect the **+** wire to the **+** quick-connect contact and the **-** wire to the **-** quick-connect contact. **NOTE: Polarity Counts!**

Continue wiring until all Emergency/Assistance Telephones are fastened.

INSTALLATION OF THE CENTRAL OFFICE LINES

1. **Connecting C. O. lines** – Connect the Central Office Lines to the RJ-11 on the right side of each of the A781 units. Each A781 LSS uses it's own C. O. line.

DISCLAIMER: EMS takes no responsibility for interpretation of safety codes for any given region, nor assumes any liability for mis-interpretation of those codes by any separate party.

OPERATION

1. **Outgoing calls** - When the C. O. line to a particular A781 is not in use, any Emergency/Assistance Telephone connected an extension of that A781 can go off hook and use the line to place a call. During the call the LED of that A781 will change to a flash rate of once per second. During the call, any other telephone connected to that A781 going off hook receives a busy signal. When the first telephone goes on hook, the line is released and the LED returns to an idle flash rate of 5 times per second.
2. **Incoming Calls** - Each A781 unit can receive an incoming call that can be routed to any internal extension. When the A781 answers an incoming call it responds with a single beep and waits for the caller to enter the digit 9 followed by the desired two-digit extension followed by the # sign. The two digit extensions of the A781 are labeled 10 through 17. The A781 goes silent for a moment while it transfers the call to the desired extension. Ring back tone is heard until the extension answers. If an Emergency/Assistance Telephone automatically answers, a single beep is heard and normal communication with that device may take place.

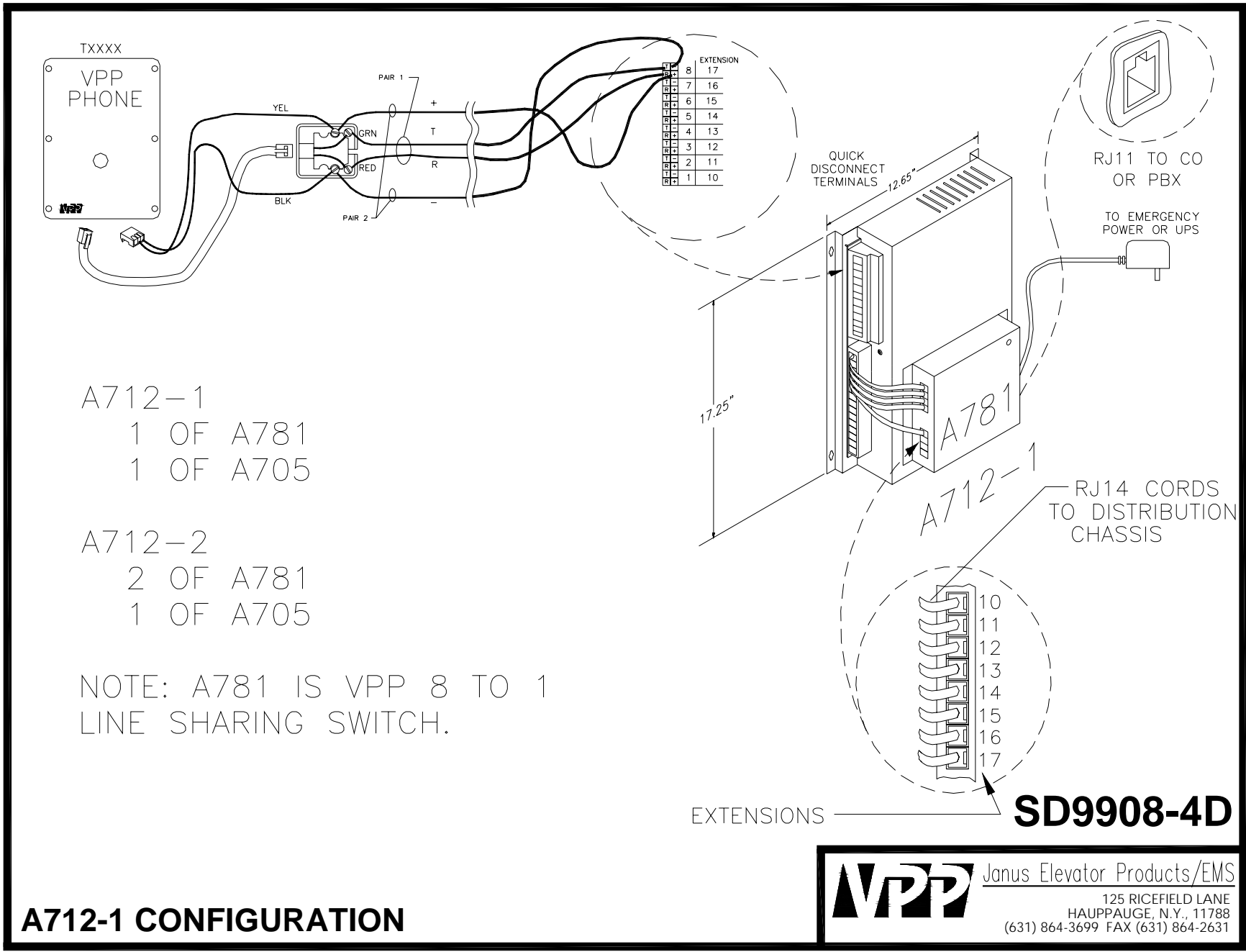
PROGRAMMING THE EMERGENCY/ASSISTANCE TELEPHONE

The Emergency/Assistance Telephone stores all of its information in non-volatile memory and once it is programmed for the desired function, it need never be programmed again. In its simplest configuration for the above system, the unit need only be programmed to dial one number, the number of the response phone. Detailed programming of the Emergency/Assistance Telephone is fully discussed in the included documentation.

WARRANTY STATEMENT

Electronic Micro Systems Inc. warrants its products to be free from defects in materials and workmanship under normal use and service for 24 months from date of purchase. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor any product which proves defective in materials or workmanship under normal use and service. EMS shall not be responsible for any damage to the unit incurred during installation. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than EMS factory service. For warranty service, contact EMS at 631-864-3699 or 800-527-9156.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.



A712-1
 1 OF A781
 1 OF A705

A712-2
 2 OF A781
 1 OF A705

NOTE: A781 IS VPP 8 TO 1
 LINE SHARING SWITCH.

A712-1 CONFIGURATION

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