DEPENDABLE EMERGENCY COMMUNICATIONS
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A714

SMALL TELEPHONE EXCHANGE SYSTEM

INSTALLATION AND OPERATION

A714 Installation and Operation

The A714 is a small telephone exchange system capable of connecting 16 Emergency/Assistance Telephones to a local Master Station Phone and/or to a Remote Answering Phone using up to 6 Central Office Lines (outside lines).

ITEMS THAT MAKE UP AN INSTALLATION:

(1) A714 control unit consisting of 2 Partner Switches (If your system contains less than 9 phones you will not receive the 2nd Partner Switch, you would only need one) with an A705 power and distribution chassis.

(1) Partner, 18 button, handset, Master Station Phone

(1) Steel, wall phone modular jack.

(1) Modular Jack

(1) Screwdriver for quick-connect connectors on power and distribution chassis.

(1) Document package with Partner instructions and VPP product information and instructions.

OVERALL SYSTEM (SEE DRAWING SD0103-1)

This system consists of 3 major components. They are the remotely located Emergency/Assistance Telephones, the Master Station Phone, and the centrally located A714 Control Unit. The overall system acts as a small telephone exchange. Calls placed by pressing the push button on an Emergency/Assistance telephone can be programmed to automatically ring the extension of the Master Station Phone or to dial to a Remote Answering Phone. The Master Station Phone and/or a Remote Answering Phone can be used to dial the extension of each Emergency/Assistance Telephone. The extensions of the telephone exchange are identified as 10 through 25 with extensions 10 through 14 and 16 through 25 connected to the Emergency/Assistance Telephones. Extension 15 is connected to the Master Station Phone, if one is used. Central office lines are identified as CO1 through CO6.

All wiring to each Emergency/Assistance Telephone is from the A714 power and distribution chassis, which combines the telephone signals with power in a convenient quick-connect connector area. Wiring to the Master Station Phone is directly from a modular telephone jack that is supplied. If you are connecting a Central Office Line connect the line directly to the Partner Switch CO Line Modular Jack.

INTERCONNECT WIRING

All interconnection wiring between each Emergency/Assistance Telephone, and the A714 control unit should be 2 pair, 22 AWG or larger. The distance should be no longer than 1000 feet with 22 AWG or 2000 feet with 19 AWG. All interconnection wiring between the Master Station Phone and the A714 Control Unit should also be 2 pair, 22 AWG or larger and should be no longer than 1000 feet. 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!*** The two wires in pair 1 to the Master Station Phone should be identified as red and green. The two wires in pair 2 to the Master Station Phone should be identified as yellow and black.

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. Make sure that no wires are crushed.

INSTALLATION AT THE A714 CONTROL UNIT END

1. **Mounting the A714 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 A714 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 SD0103. 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. ***Please note***: There is no connection for extension 15 on bank 1. Extension 15 is wired separately to the Master Station phone.

3. **Wiring the Master Station Phone lines** - Wiring for the Master Station Phone at the A714 Control Unit should be connected to the modular jack that is supplied. The wires are identified as **red, grn, yel and blk**.

INSTALLATION OF THE MASTER STATION PHONE (IF USED)

1. **Mount the telephone** - The Master Station phone may be either wall mounted or may be placed on a desk. In either case, a modular jack is used to connect the wiring from the A714 Control Unit.

2. **Wire the modular jack** - Secure the modular jack to a wall convenient to the wiring from the A714 Control Unit. Take the previously designated incoming **red** and **grn** pair from the A714 Control Unit and connect the **grn** wire to the **grn** screw terminal and the **red** wire to the **red** screw terminal. Wire the previously designated **yel** wire to the **yel** terminal and the **blk** wire to the **blk** terminal.

INSTALLATION OF THE CENTRAL OFFICE LINE (IF USED)

1. **Connecting the phone** – Take the Central Office Line (outside line) and connect it directly to modular connector CO1 on the Partner Switch.

OPERATION

This page should be given to the facility's manager or supervisor responsible for the system operation.

SYSTEM CONFIGURATION

This system consists of 3 major components. They are the remotely located Emergency/Assistance Telephones, the Master Station Phone and the centrally located A714 Control Unit.

The A714 Control Unit has connector banks to distribute wiring and a telephone switch to interconnect the Emergency/Assistance Telephones and the Master Station Phone or the Remote Answering Phone. The telephone switch consists of one or two control modules. Each telephone module contains modular jack connections for three Central Office lines and eight extension lines. The eight extension lines on the first module are designated extensions 10 through 17. The second module's extensions are designated 18 through 25. The Control Unit is wired so that the Master Station Phone, if used, is connected to extension 15.

The overall system acts as a small telephone exchange. Calls placed by pressing the pushbutton on an Emergency/Assistance Telephone can be programmed to automatically ring extension 15, which is the Master Station Phone or if configured, seize an outside line and dial a Remote Answering Phone. The Master Station Phone or Remote Answering Phone both can be used to dial directly to each Emergency/Assistance Telephone by entering the Emergence/Assistance Telephone's extension. **NOTE**: If you are using a Central Office Phone you need to call into the system first and at the tone, immediately press the number 9, then the extension you want, followed by the pound key (#).

SYSTEM OPERATION

When a call is placed from an Emergency/Assistance Telephone the caller immediately hears a dial tone and then the two-digit dialing to extension 15 or the multi-digit dialing to the outside, Remote Answering Phone. The A714 Control Unit immediately routes the call to the designated phone. Either phone that is used will ring once it receives the signal from the A714 Control Unit. Communication is established the moment the phone is answered. Two-way conversations can take place immediately, in full-duplex, with no danger of chopped or interrupted speech.

The Master Station Phone can call directly to any Emergency/Assistance Telephone by entering the 2-digit extension for the Emergency/Assistance Telephone. The called Emergency/Assistance Telephone will answer and emit a beep and within 5 seconds will open up for full-duplex communication. The 5-second delay is there to allow entering a code to perform Monitoring or Programming. If you wish to go into monitor mode, at the beep press the number 1 followed by the pound key (#). Monitor mode allows you to listen on the Emergency/Assistance Telephone without the knowledge of the surrounding people. If you wish to go into program mode, at the beep press the number 2 followed by the pound key (#), you should then hear three beeps letting you know your in program mode. Operations of these functions are described in the instructions provided with the Emergency/Assistance Telephone.

The same functions as above can be performed from any Remote Phone if a Central Office line is connected to the Lucent Switch. When calling from an outside line the system will answer and you will hear a beep. After the beep you will press 9 then enter the two-digit extension number you would like followed by the pound key (#). The extension you called will answer and beep. If you want to perform a certain function then enter the number for that function (you would enter the function number the same way you would have if you called from the Master Station Phone). If you don't enter a number within 5 seconds the Emergency/Assistance Telephone will open up for full-duplex conversation.

PROGRAMMING THE TELEPHONE SWITCH

The switch in the A714 Control Unit is preprogrammed at the factory for proper operation. The memory within the switch retains the programming information for a minimum of 45 days. In the event that the programmed information is lost, the switch must be reprogrammed either by using the Master Station Phone as described below or by restoring from the PC card provided with the unit. The backup and restore process is described in the Partner documentation.

To program from the Master Station phone, connect the Master Station phone to the telephone switch jack designated extension 10 (temporarily remove the modular cord connection that is there). The connection must be made with a 4 wire modular cord. The two required programming functions are listed below (Automatic Line Selection and Line Ring). For other program functions refer to the Partner Manual.

Program as follows:

Automatic line selection:

Press the buttons on the phone as follows:

1. Press **Feature** and then **0** and then **0** again.

   The phone beeps once and the light next to the spkr button is green flutter.

2. Press left **Intercom** button twice.

   The light next to the left Intercom button is green steady.

3. Press the right **Intercom** button.
4. Dial **10** the two-digit number of the first extension to change.
5. Press ***** and then ***** again.
6. Press the left **Intercom** button, then the right **Intercom** button and then the **line one** button.
7. Press ***** and then ***** again.
8. Go back to step 3 to program each of the extensions in the same way. At step 4 enter the extension numbers **11, 12, 13, 14, 15, 16, 17** and **18 through 25** until all of the extensions have been programmed.
9. When all extensions have been programmed press **Feature** and then **0** and then **0** again.

Line Ringing:

Press the buttons on the phone as follows:

1. Press **Feature** and then **0** and then **0** again.

   The phone beeps once and the light next to Spkr is green flutter.

2. Press left **Intercom** button twice.

   The light next to the left Intercom button is green steady.

3. Press the right **Intercom** button.
4. Dial **10**, the extension to be changed.

   Four line lights will illuminate and will either be on steady or will flutter.

5. Press the button next to each light until all of the lights are green steady.
6. Press the right **Intercom** button.
7. Dial **11**, the next extension to be changed.

   Four line lights will illuminate and will either be on steady or will flutter.

   Press the button next to each light until all of the lights are green flutter.
8. Return to step 6 and repeat the procedure for extensions **12** through **25**.
9. When you are finished, press **Feature** and then **0** and then **0** again.

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, extension 15, the extension of the Master Station phone. The programming of the Emergency/Assistance Telephone is fully discussed in the included documentation.

Maintaining Your System

Overview

Once you have set up your system, you will need to maintain it. For example, changes in your business may require additional lines or extensions. And to prepare for emergencies such as power failures, you will want to back up all your customized feature settings so you can restore the system quickly.

Backup and Restore

You should back up the system programming periodically onto a Backup/Restore PC Card, especially if you are changing the processor module or upgrading the system, or before and after any major programming changes. You can back up the programming automatically or manually. Occasionally you may have to restore programming from the backed-up file.

Note: • The PARTNER ACS Release 3.0 and later includes a PCMCIA Remote Access PC Card, which is used as follows:

– When you initially insert the PC Card into the PARTNER ACS and the system is powered up, the PC Card upgrades the existing software to the latest version.

– After you program the system, the card acts as a storage/backup device for saving your system settings, which can be used to restore the system in case these settings are lost for any reason.

– The card provides remote access to the PARTNER ACS via a local or remote personal computer. This requires a modem and additional software that must reside on your computer.

• In Release 4.0 and later systems, using a PC card does not upgrade the configuration of the 1600 DSL module. This configuration is retained in the flash memory of the 1600 DSL module, not on the PC card. When the system resets, the configuration in the flash memory of the 1600 DSL module becomes the active configuration for that module.

Backup Programming–Automatic (#123)

Use this feature to set up the automatic backup of all programming (except the system date, day, and time). When Backup Programming – Automatic is set to Active, the information is backed up at 2:00 a.m. on the first day of each month to a Backup/Restore PC Card.

If Backup Programming–Automatic is Active and an automatic backup fails, a Backup-Failure Alarm message appears (instead of the system date and time) on the top line of the telephone display at idle Extensions 10 and 11.

To change the setting for Backup Programming – Automatic:

1 Check that only one Backup/Restore PC Card is in the processor module.

2 Press *"Feature" 0 0 "System Program" "System Program" # 1 2 3* at extension 10 or 11.

3 To change the setting, press *"Next Data"* or *"Prev Data"* until the setting you want appears, or press r to return the setting to the factory setting. The possible settings are:

- 1 = Active
- 2 = Not Active (the factory setting) ✔
- 3 = Backup Alarm Cleared

4 Exit programming mode.

Backup Programming–Manual (#124)

Use this feature to manually back up all the programming (except the system date, day, and time) to a Backup/Restore PC Card.

To begin a manual backup of system settings:

1 Verify that only one Backup/Restore Card is in the processor module.

2 Press *“Feature” 0 0 “System Program” “System Program” # 1 2 4* at extension 10 or 11.

If there is a problem, a message appears (see Chapter 7, Chapter , “If Something Doesn’t Work” for explanations and corrective actions).

If there is no problem, the display instructs you to press “Enter” to begin the backup.

3 Press *“Enter”.*

A status message is displayed indicating that a backup is in progress, and within 30 seconds, a message appears indicating the result. If the backup failed, an error message appears (see Chapter 7, “If Something Doesn’t Work,” for explanations and corrective actions).

- Backup Failed:Check Card
- Backup Failed:SystemBusy

4 Exit programming mode.

Restore Programming (#125)

Use this feature to reinstate your system and telephone programming (except the System Day, System Date, and System Time) to the settings saved on a PC Card at the last system backup (manual or automatic). You should restore the system settings if your system settings become corrupted, if you make changes and decide you would rather use the former settings, or if you replace your processor module and want to retain the system settings you had on the previous processor module. A successful restore takes about five seconds.

Note: When a restore completes successfully, the Restore Complete message appears for two seconds at idle extensions 10 and 11. Then a System Reset–Programming Saved (#728) occurs, disconnecting any calls in progress. You should warn users before beginning a restore, or do the restore during nonbusiness hours.

To initiate a restore:

1 If you have a Backup/Restore PC Card installed, skip to Step 2. If you do not have a PC Card installed, see the *PARTNER PC Card Installation Instructions*.

2 Press *“Feature” 0 0 “System Program” “System Program” # 1 2 5* at extension 10 or 11.

3 Choose the backup file you want to use for the restore:

- 1 MAN.mmddyy, where “mmddyy” represents the date of the manual backup on this card
- 2 AUTO.mmddyy, where “mmddyy” represents the date of the automatic backup on this card

Note: • If the date of the file (AUTO. mmddyy or MAN. mmddyy) indicates that this is not the file you intended to use, see the instructions packaged with the PC Upgrade card for how to install the Backup/Restore PC Card.

Note: • If the Backup/Restore PC Card is fresh from the factory, and no backups have been recorded on it yet, the filenames are *MAN.***** and *AUTO.*******, respectively. You cannot use these files for a restore; they generate the error message "Empty File" after you press *"Enter"* in Step 4.

4 Press *"Enter"* to start the restore.

If the system detects an error before beginning the restore, the bottom line of the display shows one of the following messages:

- Insert Card or Insert Valid Card
- Bad File or Bad File-Try Again
- Incompat Version or Incompatible Versions
- Empty File

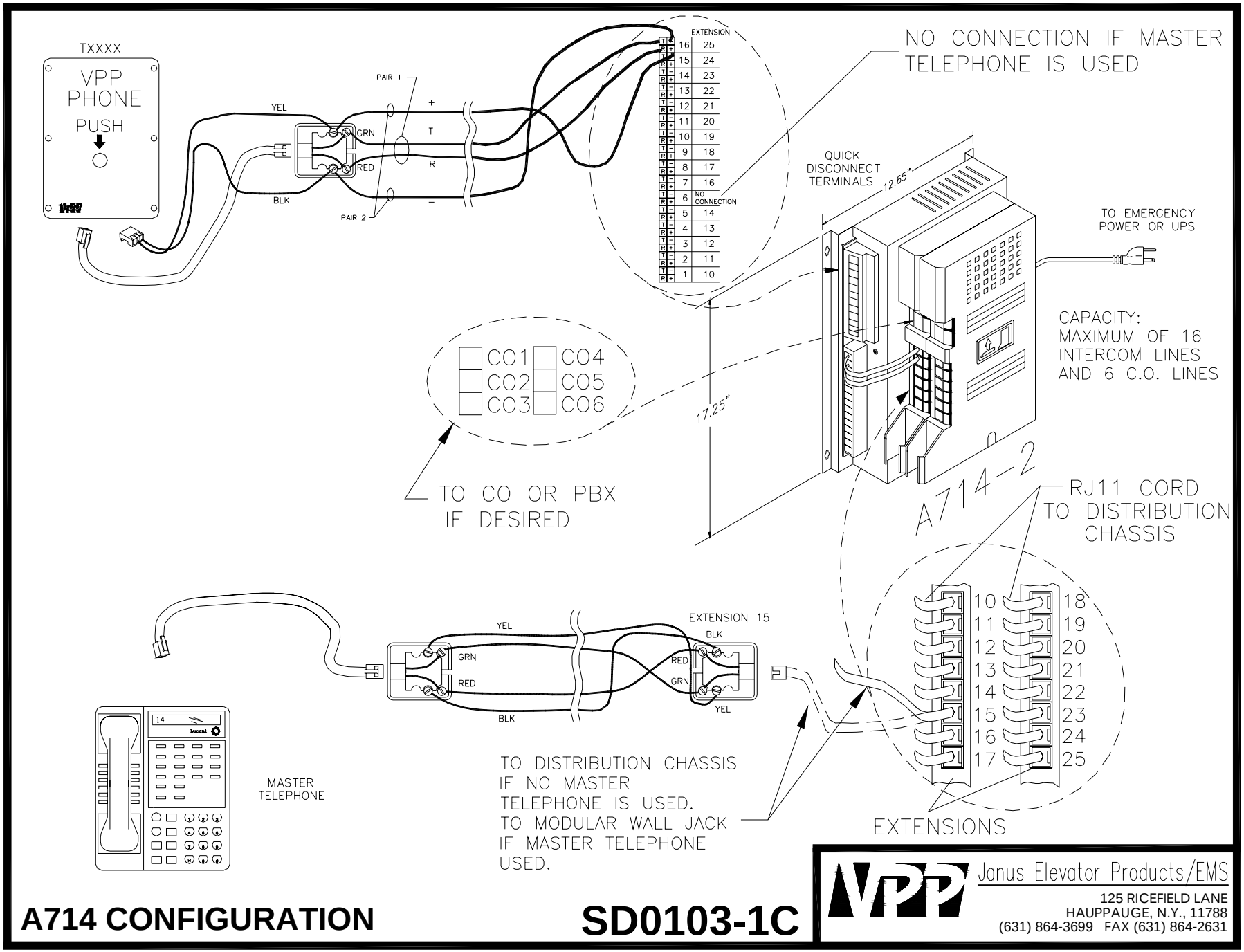
If the system does not detect an error, the restore begins. One of the following occurs:

- When the restore has completed successfully, the bottom line of the display shows "Restore Complete" for two seconds. Then the system resets itself.
- If the restore is not successful, the display shows "Restore Failed" or "Restore Failed-Try Again" for two seconds. All calls in progress are disconnected and all of the system and telephone programming settings revert to the factory settings. You are no longer in System Programming mode. Try the restore again.

WARRANTY STATEMENT

Electronic Micro Systems/VPP warrants that this product was delivered to the original purchaser in good working order at the date of purchase. The A714 carries a two- (2) year warranty on parts and labor from the date of purchase from EMS/VPP. EMS/VPP shall not be responsible for any damage to the unit incurred during installation.

Except as specifically set forth above, EMS/VPP, its affiliates, suppliers, and dealers make no warranties, express or implied, and specifically disclaim any warranties of merchantability or fitness for a particular purpose. Ongoing periodic inspections and management of the system is the sole responsibility of the final owner, and any liabilities, which occur as a result of neglect, will be accountable to the final owner. Contact EMS/VPP at 800-527-9156 for return/repair authorization.


TXXXX
VPP
PHONE
PUSH
YEL
GRN
RED
BLK
PAIR 1
PAIR 2
+
T
R
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EXTENSION
NO CONNECTION IF MASTER TELEPHONE IS USED
NO CONNECTION
QUICK DISCONNECT TERMINALS
12.65"
TO EMERGENCY POWER OR UPS
CAPACITY:
MAXIMUM OF 16 INTERCOM LINES AND 6 C.O. LINES
CO1
CO2
CO3
CO4
CO5
CO6
17.25"
TO CO OR PBX IF DESIRED
A714-2
RJ11 CORD TO DISTRIBUTION CHASSIS
EXTENSION 15
MASTER TELEPHONE
TO DISTRIBUTION CHASSIS IF NO MASTER TELEPHONE IS USED. TO MODULAR WALL JACK IF MASTER TELEPHONE USED.
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