



CARTER CONTROL SYSTEMS

ISO 9001:2000 CERTIFIED

PRODUCT CATALOG

Effective Date: July 17, 2008

CCS Doc No: FORMGEDFM018, Rev H

CARTER CONTROL SYSTEMS, INC.
7618 Hayward Road
Frederick, MD 21702-3006

TEL: (301) 698-9660

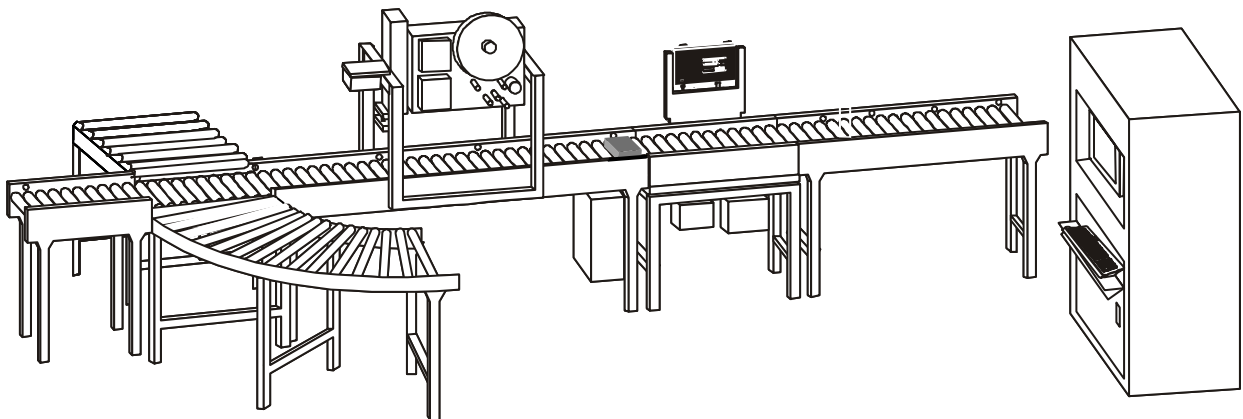
FAX: (301) 695-3851

Website: www.cartercontrols.com

Automated Mailtray/Manifest Processing System (AMPS™)

The AMPS™ is an automated computer based system that processes mail trays in either commercial mailer or USPS environments. Trays are metered into the system and processed in a sequential fashion on a continual basis. Trays may also be transported through a system bypassing any processing and sent downstream. When used and configured within a commercial facility, the system is referred to as a Transportation Assignment Automated Shipping System (TAASS). When used and configured for a postal facility, the system is referred to as an Automated Airline Assignment (AAA) system. The main basic functions of the AMPS™, which apply to both facility types include the following.

- Automatically scans and weighs sleeved trays and lidded flat trays dispatched for surface or air destinations.
- Prints and applies local and surface transportation labels based on surface and schedule tables that reside on the AMPS™ PC.
- Transmits the tray distribution label and weight information to the USPS Surface-Airmail Management System (S-AMS) requesting routing, then prints and applies the appropriate transportation label on top of the tray in the appropriate areas as received from (S-AMS). For TAASS units an included external modem (USPS PostalOne! specified) provides the direct communication with the S-AMS.
- Prints and applies error code labels for trays that cannot be processed.
- Sorts mail trays to appropriate gravity skatewheel runouts or optionally sorts mail trays to additional sequential runouts by use of a separately added sortation conveyor system.
- Logs data in a format compatible with the USPS PostalOne! DAT reporting software.
- Provides the capability to configure the layout orientation and generate/print reports.
- Includes reject runout to return rejected mail product in the direction of the operator workstation and additional sortation runout (possible use for local mail).



TYPICAL AMPS™

The system consists of:

- The system can be constructed to accommodate left or right hand position of the reject line.
- Feed Section (Input) *Additionally, reads rear tray distribution labels and pre-existing D&R labels- AAA configuration only.*
- AutoScale™ Section (Obtains tray weight information).
- Label Printer Applicator (LPA) Section, w/bar code scanners (Reads front tray distribution labels, prints and applies appropriate label, and verifies label).
- Pop-Up Cross-Transfer Section, w/reject runout lane (redirects trays if direction of travel is to change as a result of processing).
- Optional systems interfaced at the Pop-Up Cross Transfer section.

Processing Overview

In general, the AMPS™ Feed Section receives mail trays from an AutoSleeve™, another conveyor system, or manually by an operator. The Feed Section delivers mail trays to the AutoScale™ Section via accumulating sensor-activated, powered roller sections resulting in zero-pressure accumulation that keeps mail trays from bumping into each other. Mail trays are weighed “on-the-fly” while scanned by a tray distribution label scanner. If the bar code label cannot be read, then the trays go straight through and are diverted to a reject line by the Pop-Up Cross Transfer Section where it will require further attention by the operator. If a D&R label is to be applied, the Section will print and apply the appropriate label, scan and verify any applied bar coded labels, and move the mail trays to the Pop-Up Cross Transfer Section for routing to the appropriate downstream location.

Controls

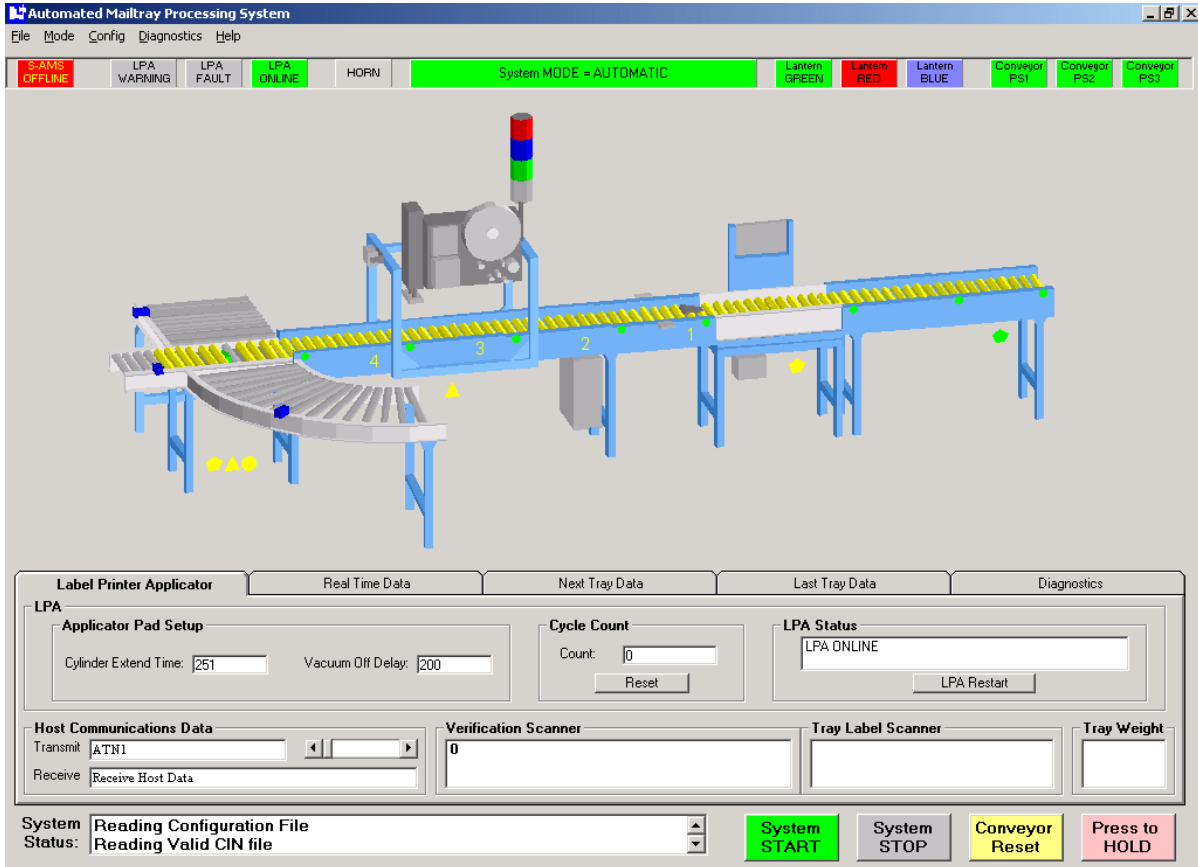
The controls used in this system are based on Ethernet interconnected Momentum I/O Control Modules. The AMPS™ includes a control console equipped with a personal computer. The PC-based computer system consists of a computer, monitor, mouse, keyboard, and laser printer. An uninterruptible power supply is included to guard against unexpected power outages and provides the user ample time to save and close any data from current operations.

The computer is at a minimum a Pentium IV 2.0 GHz CPU with Microsoft *Windows XP Professional* installed as the platform for the operating system. The computer holds the database and application programs designed to monitor, operate, and maintain all AMPS™ operations via a Graphical User Interface (GUI). The mailer and the USPS maintain the database after initial installation.

The AMPS™ control software consists of the machine control runtime program and the CCS GUI working in conjunction with each other, along with support files, to provide the overall system control. The GUI displays user-friendly screens that allow the operator or maintenance personnel to operate, monitor, diagnose problems, and perform maintenance associated with the AMPS™ system. System logs consisting of data and event logs are created that can be viewed and printed. The system allows for automatic, bypass and maintenance modes of operations. A pair of Emergency Stop pushbuttons is included on the AMPS™ conveyor, just after the AutoScale™.

An internal modem is provided for off-site maintenance support through the use of *PC Anywhere* and an external modem provides the link to the USPS S-AMS.

A typical AMPS™ GUI screenshot follows:

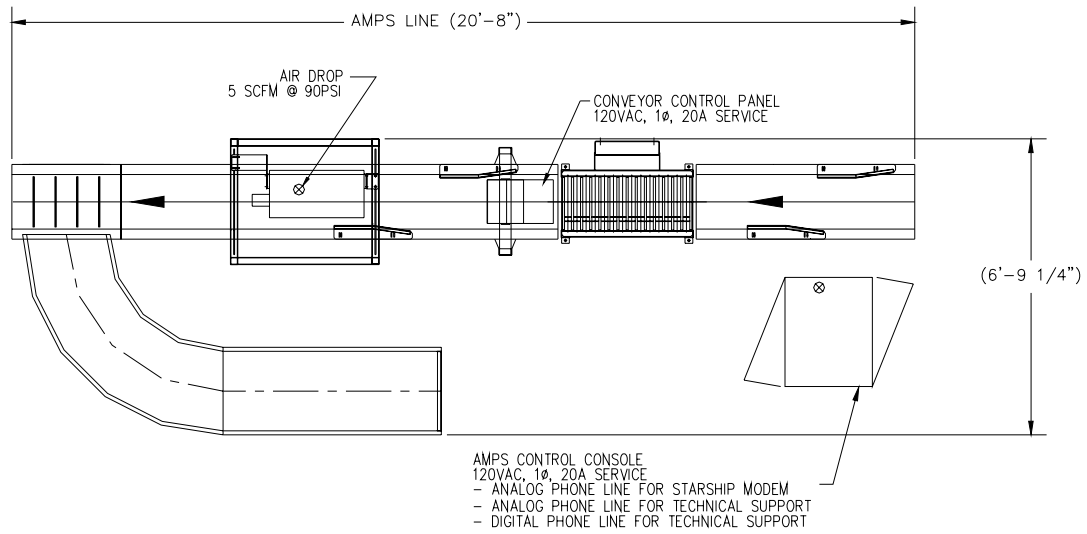


Power & Air Requirements

The AMPS™ system requires two 120VAC (rated at 20 amps) power drops; one for the control console and one local conveyor control panel. Additionally, a clean dry (free of dust, dirt, oil and moisture) pressurized air source regulated to 90 psi at 4-6 scfm is required to support the pneumatic cross transfer and the label printer/applicator.

Dimensions

AMPS SYSTEM



NOTES:
△ CONVEYOR T.O.R. ADJUSTABLE FROM 30"-43"

