The 2346 Plus One Automatic Delay System is used in simulcast applications to maintain a constant audio delay to transmit sites. It uses 806AR-P1 TIMS Test Sets to measure path delay and adjust the 2046 Delay Cards (or 2042 Equalizer Cards) to accommodate changes.

The system requires an extra 4-wire voice channel to each site which takes the same route as the working channels. The extra channel is connected to the TIMS Test Set and looped back at the transmitter site. The 2002F Control Card commands the TIMS to measure Round Trip Delay. When a change in delay is detected, the 2002F will make a compensating adjustment to all channels assigned to the site. Each equipment shelf handles up to two automatically controlled ("plus one") sites, and a number of fixed delay sites. Each "plus one" site requires a dedicated 806AR-P1 TIMS Test Set.

HARDWARE The Plus One Automatic Delay System requires the normal equipment used for a fixed delay system and a P1 optioned TIMS Test Set.

1 ea. 2346 Equipment Shelf / 10 Slots
1 ea. 2002F Control / Power Card
1 ea. 2003A Redundant Power Card
1 to 8 2046 Delay Cards (or 2042 Equalizer Cards)
0 to 2 2041 Audio / PTT Distribution Cards
1 or 2 806AR-P1 TIMS Test Set with P1 firmware option

CONTROL The system is controlled via PC Software over a serial data link which is connected to the DCE Port on the rear of the shelf. The 806AR TIMS Test Sets are controlled through the DTE Ports on the rear of the equipment shelf.

The 2746 Plus One Automatic Delay System handles up to 20 channels that require (2042) equalization.
### PLUS ONE CONTROL SCREEN

#### PLUS ONE AUTOMATIC DELAY SYSTEM

![Screen Shot of Plus One Control](image)

#### Table: Plus One Control Settings

<table>
<thead>
<tr>
<th>Site</th>
<th>Auto</th>
<th>Reference</th>
<th>Channel</th>
<th>NORM Channel</th>
<th>P1 Hold Delay uS</th>
<th>Equalizer Delay uS</th>
<th>Bulk Delay uS</th>
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#### Additional Settings:
- **Reference:**
  - 0 + 0.0 + 1804
- **Measured:**
  - 3001 + 0.0 + 1805
- **Error:**
  - 3001 + 0.0 + 1
- **Variation +/−:**
  - 5 + 0.5 + 4
- **Zone +/−:**
  - 5
- **Divide:**
  - 2
- **Run Time:**
  - 0.1
- **Average:**
  - 8
- **Change Count:**
  - 3
- **Zero Rate:**
  - 1/hr.