

TABLE 6-5
DIVISION PERIOD II - BASIC DIVISION SEQUENCE
Requires two add. times: d+1 and d+2

Add. Time (and Prog. Ring Stage)	Signal	Effect	Comment
<p>For $n=0$, this add. time is counted as part of period I For $n>0$, this add. time coincides with add. time $s+2$ of period II or add. time $d+2$ of period I</p>			
<p>d $=3+2n$ for $n=0$ For $n>0$ see period I (A)</p>	<p>1) P pulse derived from GP gated through [D9] as a result of the coincidence of the NO signal and a signal from the Q_A receiver, or GP gated through [G9] by a signal from the N^1Y receiver, or (see period I) DP gated through [E8] by a signal from stage 1 of the program ring.</p>	<p>1) a) Sets the N^1Y receiver. b) Gated through [B10] when the like sign signal closes [B11], P sets the D_S receiver or gated through [B11] when the unlike sign signal closes [B10], P sets the D_A receiver.</p>	<p>1) During <u>add. time d+1</u>, then, the numerator accumulator receives either the complement of the denominator (when the numerator and denominator have the same signs) or the denominator (when the numerator and denominator have unlike signs). While these receivers are set, the corresponding neons are on. At the <u>end of add. time d+1</u>, these receivers are reset by a GP.</p>
<p>$d+1$ (A)</p>	<p>1) DP</p>	<p>1) a) Gated through [L10] by a signal from the N^1Y receiver, sets the Q_A receiver. b) Gated through [G11] by a signal from the D_S receiver, sets the +1 receiver or, gated through [H11] by a signal from the D_A receiver, sets the -1 receiver.</p>	<p>1) During <u>add. time d+2</u>, then, the quotient accumulator receives 1 in a given decade place if the denominator was subtracted from the numerator or receives the complement of 1 if the denominator was previously added to the numerator. The neons corresponding to these receivers are on as long as the receivers are set. The Q_A receiver is reset by a CFP and the +1 or -1 receiver is reset by a DP at the <u>end of add. time d+2</u>.</p>

SHIFT SEQUENCE
Requires two add. times: s+1, s+2

Add. Time (and Prog. Ring Stage)	Signal	Effect	Comment
<p>This add. time coincides with add. time $d+2$ above</p>			
<p>s $=3+2n$ for $n=1$ (A)</p>	<p>1) S pulse produced when a GP is gated through [E9] as a result of the coincidence of an O signal and a signal from the Q_A receiver.</p>	<p>1) a) Sets the S_A and N^1AC receivers. b) Sets the D^1Y receiver.</p>	<p>1) a) During <u>add. time s+1</u>, the numerator is transmitted (with clearing) from the numerator accumulator and received in the shift accumulator. At the <u>end of add. time s+1</u>, a CFP resets the S_A receiver and N^1AC receiver. b) There is no numerical effect on the division from the setting of the D^1Y receiver since there is no data for the denominator accumulator to receive during <u>add. time s+1</u>. This receiver is reset at the <u>end of add. time s+1</u> by a DP. c) SS pulse terminates period II and initiates period III.</p>
<p>$s+1$ (A)</p>	<p>1) Signal from the S_A receiver.</p>	<p>1) a) Gates 1^1P_1 through [L45] to produce 1^1P_2 which cycles the place ring 1 stage. b) Gates a CFP through [L1] so that the numerator binary ring is cycled 1 stage. c) Gates a CFP through [L7] so that the N^1Y and S_{AC} receivers are set.</p>	<p>1) a) As a result 0 ceases to be emitted and NO is emitted instead. b) Then the shift accumulator transmits (and clears) its contents to the numerator accumulator during <u>add. time s+2</u>. At the <u>end of add. time s+2</u>, a CFP resets the N^1Y and S_{AC} receivers.</p>