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Eagle Product Update December 4, 2002

The last Product Update was distributed on October 19, 2001.

This Product Update defines the following releases:

EPAC300 M30+(LM) .... Rev. 3.32h

The current product firmware/software revisions are:

EPAC300 M02 ..... Rev. 1.94q  
EPAC300 M03+ ..... Rev. 2.29s  
EPAC300 M10+ ..... Rev. 2.34s  
EPAC300 M30+ ..... Rev. 3.13f  
EPAC300 M30+(LM) .... Rev. 3.32h  
EPIC140 M01+ ..... Rev. 1.10b  
EPIC140 M30+(LM) .... Rev. 2.00b  
MARC300 M02+ ..... Rev. 1.96b  
MARC300 M03+ ..... Rev. 1.96b  
MARC300 M10+ ..... Rev. 2.32d  
MARC300 M30+(LM) .... Rev. 3.00  
RMC300 M01+ ..... Rev. 2.00d  
RMC300 M30+(LM) ..... Rev. 3.00a

Model 30/40 SDLC .... Rev. 1.04  
TS 2 BIU ..... Rev. 1.02  
Model 3 IOP ..... Rev. 1.60  
Model 2 IOP ..... Rev. 2.30

MARC PC ..... Rev. 3.32c  
EPAC Portable ..... Rev. 3.32c  
EPIC Portable ..... Rev. 2.00  
RMC3 Portable ..... Rev. 3.00  
USA1 Portable ..... Rev. 1.02  
EF140 Portable ..... Rev. 1.14  
DP9000 Portable ..... Rev. 1.15

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EPAC300 UPDATE

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EPAC300 M40+ (LM - 16Mhz) v3.32h  
EPAC300 M30+ (LM - 16Mhz) v3.32h

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Ped Overlaps (well - sort of);

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It is possible to program phase ped outputs such that the ped outputs are active with two separate phases as follows:

1. If either phase is timing Walk, then the ped outputs display Walk. If the assigned phase is Walk and the switched phase is next in the ring structure based on the active sequence and has a ped call, the Walk will remain Walk until the switched phase completes its Walk timing.
2. If neither phase is timing Walk but one of the phases is timing Ped Clear, then the ped outputs display Ped Clear (FDW).
3. If neither phase is timing Walk or Ped Clr, then the ped outputs display Don't Walk.

PED DET CONTROL ..1..2..3..4..5..6..7..8  
ASSIGNED PHASE 1 2 3 4 5 6 7 8  
OPERATION MODE 1 1 1 1 1 1 1 1  
SWITCHED PHASE 0 0 0 0 0 0 0 0  
MODE: 0-VEH 1-PED 2-ONE 3-SBA  
4-SSB 5-PPL 6-PPT 7-AND SWITCHED: TO PH # (AP=Y/R & SP=GRN)  
A-UP B-DN C-LT D-RT E-ENTER F-PRIOR MENU

SWITCHED PHASE:

00 - No Ped Overlap

## - Phase Number of the 2nd phase to also drive the ASSIGNED PHASE ped outputs.

If multiple ped detectors have the same ASSIGNED PHASE entries but different non-zero SWITCHED PHASE entries, they will be used as additional ped timings to be ORed into the control.

When ALL assigned active (Walk & Ped Clr times  $\neq$  0) ped detectors have the same SWITCHED PHASE entries, a concurrent/exclusive ped operation is assumed. When this condition exists, the absence of a PHASE OMIT on the exclusive (SWITCHED PHASE) phase causes a continuous PED OMIT to occur on the ASSIGNED PHASE. When this condition exists, the exclusive (SWITCHED PHASE) phase shall receive the assigned phase pad calls regardless of ped operation (concurrent/exclusive).

Exclusive ped omits are subject to hardware inputs, tbc phase functions, and

coord phase omits.

Ped Concurrent / Exclusive;

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The Ped Overlap capability above makes it possible have ped outputs that are concurrent or exclusive at different times of day.

Time-of-Day (Free): Utilize a Phase Function to activate the 'exclusive' PHASE OMIT at the appropriate time(s). Concurrent when true / Exclusive when false.

The Ped Overlap capability above makes it possible have ped outputs that are concurrent or exclusive based on pattern. Due to the reliance on the servicing of an existing Coord Phase Ped movement in the Permissive and Yield modes of Coordination, those Coord modes do not support the Exclusive Ped functionality unless the Exclusive Ped phase is the Coord Phase. The Exclusive Ped function is only compatible with those Coord modes that support an actuated Ped movement on the Coord Phases: Permissive Yield, Permissive Omit, Sequential Omit and Full Actuated Coord. Only these Coord Modes will run if the Exclusive Ped phase is not omitted.

Pattern (Coord): In a Pattern with the 'exclusive' Phase Mode = Phase Omit, Concurrent when true / Exclusive when false.

Miscellaneous Stuff;

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(+)-The MMU redundant conflicts diagnostic timeout was in error.

(+)-When entering Remote Flash, Ped Omits are now applied to all Green Phases. This means that the Ped movement of a phase will be serviced on initial entry to a phase but will not be rescheduled.

(+)-Coord Yield Mode; when the Yield Period was long & a cycle occurred in which the Coord Phase did not leave Walk, the next cycle showed a late termination of the permissive periods.

(+)-Calculation of maximum allowed offset correction in a phase has been fixed to derive the correct values for phases that are in more than one subcluster.

(+)-Phase Initialize programming; when all phases in a ring had the entry of zero (0), the unit would not allow a change to some other value.

(+)-Display; change to Coord D/S screen that shows the (cycle - phase times sum).

(+)-Diagnostics; the attempt to derive U# for failed chips in the ROM check is abandoned. We just report "FAILED" rather than "FAILED: U##".

(+)-Display; fixed a problem with M30 large memory plus small display.

(+)-Coord; is prevented from picking up when a Coord Phase was omitted.

(+)-Coord; on starting a plan or after a jump correction, the phase-by-phase adjustments required by the distribution of time to run Perm Omit (et al) are reinstated.

(+)-Coord; when the last subcluster of a sequence (8-phase quad with a single phase (e.g. Phase-9) added to the end of ring-1 and becoming the third subcluster) was omitted via phase mode, the cycle calculation would hang and stop the task that was doing the calculation from progressing.

(+)-Coord - SOM Mode & Cycle Force; put all time into the phase following the Coord Phase.

(+)-Coord; in an intersection with 6 subclusters (the maximum), there was a problem with some time distributions.

(+)-Coord; when a Ped Delay occurred in a phase, a log was entered even when it wasn't necessary because service had returned to the Coord Phases early.

(+)-Coord - YLD Mode; when the either Coord Phase leaves the Walk, Walk Rest Modifier is cancelled on the other ring.

(+)-Coord; when Coord Free, the Coord split time is used for Max 2. (Previously, it was only used for Max 1.)