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7KH IRUHJRLQJ ZDUUDQW\ VKD00 QRW DSS0\ WR GHIHFWV UHVX0LQJ IURP LPSURSHU RU LQDGHTXDWH PDLQWHQDQFH E\ %X\HU %X\HU VXSS0LHG VRIWZDUH RU LQWHUIDFLQJ XQDXWKRUL]HG PRGLILFDWLRQ RU PLVXVH RSHUDWLRQ RXWVLGH RI WKH HQYLURQPHQWD0 VSHFLILFDWLRQV IRU WKH SURGXFW RU LPSURSHU VLWH SUHSDUDWLRQ RU PDLQWHQDQFH

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KH 3U FLV &W LV D SUHFLVLRQ VRXUFH RI 8QLYHUVDO &RRUGLQDWHG 7LPH 87& WKDW FDQ EH FRQQHFWHG WR DQ\ FRPSXWHU KDYLQJ DQ 56 VHULDO , 2 SRUW ,Q LWV PRVW EDVLF RSHUDWLRQ LW EURDGFDVWV DQ $6&,, WLPH RI GD\ PHVVDJH HDFK VHF RQG ZLWK D VSHFLILF FKDUDFWHU EHLQJ WKH ¶RQ WLPH· FKDUDFWHU 7KH WUDQVPLVVLRQ WLPH RI WKLV FKDUDFWHU LV DFFXUDWH WR 0HVV WKDQ RQH PLOOLVHFRQG 0RUH FULWLFDO DSSOLFDWLRQV PD\ WDNH DGYDQWDJH RI WKH WZR VSHFLDO VLJQDOV DYDLODEOH RQ WKH LQWHUI I FR

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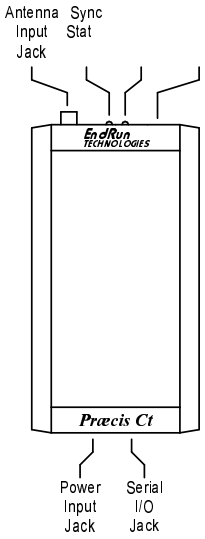

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$0DUP 6WDWXV / ('	,Q 1RUPDO PRGH WKLV UHG / (' LOOXPLQDWHV EULHI\ DW SRZHU XS DQG WKHUHDIWHU ZKHQHYHU D VHULRXV IDXOW FRQGLWLRQ H[LVWV ,Q 6LJQDO 4XDOLW\ PRGH LW LQGLFDWHV WKH 6\QF GDWD &\FOLFDO 5HGXQGDQF\ &KHFN IDLOXUH UDWH
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7KHQ WKH JUHHQ / (' ZLOO SX0VH DW SUHFLVH0\ D +] UDWH V\QFKURQL]HG WR 87& VHFRQGV ZLWK D VKRUW RQ GXUDWLRQ UH0DWLYH WR WKH RII GXUDWLRQ

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,I \RX KDYH D FH00X0DU & ' 0$ SKRQH VHH LI LW ZLOO ZRUN LQ GLJLWD0 PRGH ,I LW ZLOO WKHQ \RXU 3U FLV &W PD\ EH GDPDJHG DQG VKRX0G EH UHWXUQHG WR WKH IDFWRU\ IRU UHSDLU RU H[FKDQJH

&RQQHFWLQJ &RPSXWHUV WR WKH 3U FLV &W

0RXQW WKH 3U FLV &W
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FRPPRQ SURE0HP 5HIHU WR $SSHQGL[$ ² 6HULD0 , 2 &RQWUR0 DQG 6WDWXV &RPPDQGV IRU WKH VLJQD0 FRQQHFWLRQV IRU WKH 3U FLV &W

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,W LV QRW QHFHVVDU\ WR XVH D QX00 PRGHP FDE0H RU DGDSWHU ZLWK WKH 3U FLV &W

&KDSWHU

3

6HWXS ZLWK 173 RQ 8QL[0LNH 3DWIRUPV

7R FRQILJXUH \RXU 8QL[0LNH FRPSXWHU WR XVH \RXU 3U FLV &W \RX PXVW KDYH VXFFHVVIX00\ FRPS0HWHG WKH %DVLF ,QWD00DWLRQ SURFHGXUHV LQ &KDSWHU 7KLV PDQXD0 LV QRW D ¶+RZ 7R· RQ LQVWD00LQJ DQG XVLQJ 173 EDVLF DSSURDFKHV WR 173 FRQILJXUDWLRQ IRU RSHUDWLRQ ZLWK WKH 3U FLV &W ZL00 EH GHVFULEHG ,W LV H[SHFWHG WKDW \RX DUH RU KDYH DFFHVV WR D FDSDE0H 8QL[/LQX[V\VWHP DGPLQLVWUDWRU DQG NQRZ PRUH WKDQ D 0LWW0H DERXW LQVWD00LQJ GLVWULEXWLRQV IURP VRXUFH FRGH DQG UH FRPSL0LQJ \RXU NHUQH0 ,QVWD00DWLRQ PXVW EH SHUIRPHG E\ D XVHU ZLWK URRW SULYL0HGJHV RQ WKH V\VWHP ,I \RX KDYH QHYHU XVHG 173 WKHQ \RX VKRX0G VSHQG VRPH WLPH UHDGLQJ WKH RQ 0LQH GRFXPHQWV HVSHFL00\ WKH ' LVWULEXWLRQ 1RWHV)$4 DQG 5HIHUHQFH &0RFN ' ULYHU VXEWHFW PDWWHU ZKLFK DUH DYDL0DE0H DW

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QHZV \RXUBQHZVBVHUYHU FRPS SURWRFR0V WLPH QWS

> 1RWH
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,I \RX RQ\ QHHG D IHZ PLOLVHFRQGV RI SUHFLVLRQ WKHQ DOO SODWIRUPV ZLOO VXSSRUW V\Q FKURQL]DWLRQ XVLQJ WKH VWDQGDUG 173 UHIHUHQFH FORFN GULYHUV ZKLFK PHUH\ WLPHWJ WKH UHFHLSW RI D VSHFLILF RQ WLPH FKDUDFWHU LQ WKH FORFN·V WLPH RI GD\ PHVVDJH 7KLV LV WKH HDVLHVW SDWK WR VHWWLQJ XS DQ 173 VHUYHU DQG LV UHFRPPHQGHG IRU DOO EXW WKH PRVW GH PDQGLQJ DSSOLFDWLRQV 7KLV PRGH RI RSHUDWLRQ GRHV QRW PDNH XVH RI WKH WZR VSHFLDO VLJQDOV RQ WKH 3U FLV &W VHULDO , 2 FRQQHFWRU

' DWD &DUULHU ' HWHFW ' & '	7KH 3U FLV &W GULYHV WKLV VLJQDO IURP LWV 336 RXWSXW 7KH IDOOLQJ HGJH RI WKH ' & ' RXWSXW IURP WKH 3U FLV &W LV RQ WLPH DQG WKH QHJDWLYH SXOVH ZLGWK LV VHW WR RQH ELW ZLGWK DW WKH VHOHFWHG EDXG UDWH
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%DVLF

1RZ \RX QHHG WR PDNH VXUH WKDW WKH VHULDO , 2 SRUW SDUDPHWHUV RI WKH 3U F

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&RQILJXUH 173

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ˇf dge  1 7.1 7.5.0 refid CDMA
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7KH ILUVW 0LQH WHOOV QWSG WR XVH WKH 7UXH7LPH UHIHUHQFH F0RFN GULYHU DQG WR SUHIHU LW RYHU DOO RWKHU VHUYHUV ZKLFK PLJKW EH GHF0DUHG LQ WKH QWS FRQI ILOH 7KH WUDL0LQJ]HUR LQ WKH VHUYHU DGGUHVV LV WKH ¶XQLW LG· DQG LQ WKLV FDVH WHOOV QWSG WR XVH WKH GHYLFH SRLQWHG WR E\ WKH V\PER0LF 0LQN WUXH 7KH VHFRQG 0LQH WHOOV QWSG WR UHS0DFH WKH GHIDXOW UHIHUHQFH LGHQ WLILFDWLRQ ILH0G IRU WKH 7UXH7LPH UHIHUHQFH F0RFN GULYHU ZLWK FKDUDFWHUV ¶& ' 0$· 7KLV UHIHUHQFH LGHQWLILFDWLRQ ILH0G LV WUDQVPLWWHG LQ WKH 173 VHUYHU UHS0\ SDFNHWV WKDW DUH VHQW LQ UHVSRQVH WR 173 F0LHQW UHTXHVW SDFNHWV ,W LGHQWLILHV WKH VRXUFH RI \RXU 173 VHUYHU·V UHIHUHQFH WLPH

5H VWDUW QWSG WR KDYH LW EHJLQ XVLQJ WKH 3U FLV &W DV WKH SUHIHUUHG V\QFKURQL]DWLRQ SHHU

8VH WKH 173 XWL0LW\ QWST WR FKHFN WKDW QWSG LV DE0H WR FRPPXQLFDWH ZLWK WKH 3U FLV &W $IWHU LVXLQJ WKH FRPPDQG

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n
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\RX ZL00 VHH WKH QWST FRPPDQG SURPSW

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n  >
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8VH WKH FRPPDQG

WR GLVS0D\ WKH 173 SHHUV ZKLFK \RXU FRPSXWHU LV XVLQJ 2QH RI WKHP VKRX0G EH WKH 7UXH7LPH UHIHUHQFH F0RFN GULYHU ZKLFK \RX KDYH WXW FRQILJXUHG <RX VKRX0G YHULI\ WKDW LV LV EHLQJ ¶UHDFKHG· <RX PD\ KDYH WR FRQWLQXH LVVXLQJ WKH SHHUV FRPPDQG IRU D PLQXWH RU WZR EHIRUH \RX ZL00 VHH WKH ¶UHDFK· FRXQW LQFUHPHQW ,I \RX KDYH RWKHU SHHUV FRQILJXUHG YHULI\ WKDW WKH RIIVHW LQIRUPDWLRQ IRU WKH 7UXH7LPH SHHU DQG \RXU RWKHU SHHUV LV LQ DJUHHPHQW WR ZLWKLQ D IHZ PL00LVHFRQGV DVVXPLQJ WKDW WKH RWKHU SHHUV DUH V\QFKURQL]HG WR WKDW 0HYH0 RI DFFXUDF\

,W PD\ D0VR EH XVHIX0 WR VWDUW WKH 173 GDHPRQ LQ ¶GHEXJ· PRGH QWSG ²G WR FRQILUP VXFFHVVIX0 FRQILJXUDWLRQ 5HIHU WR WKH 173 GRFXPHQWDWLRQ IRU GHWDL0HG XVDJH RI WKHVH GHEXJ XWL0LWLHV

3D0LVDGH 173 6HWXS

6HWXS XVLQJ WKH 7ULPE0H 3D0LVDGH HPX0DWLRQ PRGH LV QRW PXFK PRUH FRPS0LFDWHG WKDQ EDVLF VHWXS LI

œ <RX KDYH EHHQ DE0H W

1RZ \RX QHHG WR PDNH VXUH WKDW WKH VHULDO , 2 SRUW SDUDPHWHUV RI WKH 3U FLV &W DUH FRPSDWLEOH ZLWK WKH 7ULPEOH 3DOLVDGH 173 UHIHUHQFH FORFN GULYHU 2 E\ VHQGLQJ

> L >

he 3U FLV &W VKRXOG UHVSRQG

600, , , > L >

,I WKH FRPPDQG UHVSRQGV ZLWK GLIIHUHQW VHWWLQJV WKHQ \RX PXVW FKDQJH WKHP XVLQJ WKH FRPPDQG

600, , , > L >

1RWH

,I \RX KDG WR FKDQJH WKH VHWWLQJV \RX ZLOO QRZ QHHG WR FKDQJH WKH VHW WLQJV LQ \RXU WHUPLQDO SURJUDP WR PDWFK WKH QHZ RQHV LQ RUGHU WR EH DEOH WR FRQWLQXH FRPPXQLFDWLQJ ZLWK WKH 3U FLV &W

1RWH

6KXW GRZQ \RXU WHUPLQDO SURJUDP QRZ VR WKDW LW GHVV QRW LQWHUIHUH ZLWK WKH 173 UHIHUHQFH FORFN GULYHU 0DWHU

6HW WKH 6\PERLF /LQN

1RZ \RX PXVW GHILQH D V\PERLF OLQN LQ \RXU GHY GLUHFWRU\ WKDW SRLQWV WR WKH VHULDO , 2 SRUW WR ZKLFK WKH 3U FLV &W LV FRQQHFWHG 7KH QDPH RI WKLV OLQN LV XVHG E\ WKH 173 UHIHUHQFH FORFN GULYHU)RU /LQX[\RX PJKW LVVXH WKLV VKHO FRPPDQG ZKHUH [LV WKH VHULDO GHYLFH QXPEHU WR ZKLFK \RXU 3U FLV &W LV FRQQHFWHG

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ln  s /dev/tty x /dev/palisade0
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&RQILJXUH 173

1RZ \RX PXVW HGLW WKH QWS FRQI ILOH ZKLFK QWSG WKH 173 GDHPRQ 0RRNV IRU E\ GHIDXOW LQ WKH WKH HWF GLUHFWRU\ $GG WKHVH OLQHV WR WKH QWS FRQI ILOH

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server 1 7.1 7. 9.0 prefer
ˊf dge  1 7.1 7. 9.0 refid CDMA
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7KH ILUVW OLQH WHOOV QWSG WR XVH WKH 3DOLVDGH UHIHUHQFH FORFN GULYHU DQG WR SUHIHU LW RYHU DOO RWKHU VHUYHUV 7KH WUDLQLQJ]HUR LQ WKH VHUYHU DGGUHVV LV WKH ¶XQLW LG· DQG LQ WKLV FDVH WHOOV QWSG WR XVH WKH GHYLFH SRLQWHG WR E\ WKH V\PERLF OLQN SDOLVDGH 7KH VHFRQG OLQH WHOOV QWSG WR UHSODFH WKH GHIDXOW UHIHUHQFH LG ILHOG IRU WKH 3DOLVDGH UHIHUHQFH FORFN GULYHU ZLWK WKH FKDUFWHUV ¶& ' 0 $· 7KLV UHIHUHQFH LG ILHOG LV WUDQVPLWWHG LQ WKH 173 VHUYHU UHS\ SDFNHWV WKDW DUH VHQW LQ UHVSRQVH WR 173 FOLHQW UHTXHVW SDFNHWV ,W LGHQWLILHV WKH VRXUFH RI \RXU 173 VHUYHU·V UHIHUHQFH WLPH

5H VWDUW QWSG WR KDYH LW EHJLQ XVLQJ WKH 3U FLV &W DV WKH SUHIHUUHG V\QFKURQL]DWLRQ SHHU

8VH WKH 173 XWLOLW\ QWST WR FKHFN WKDW QWSG LV DEOH WR FRPPXQLFDWH ZLWK WKH 3U FLV &W $IWHU LVVXLQJ WKH FRPPDQG

n

\RX ZLOO VHH WKH QWST FRPPDQG SURPSW

n >

8VH WKH FRPPDQG

WR GLVS0D\ 3 0 0 8.33333 0 [illegible]

336 173 6HWXS

<RX DUH UHDG\ WR VHWXS XVLQJ WKH 336 GULYHQ ' & ' FDSDELOLW\ RI WKH 3U FLV &W LI

- <RX KDYH EHHQ DEOH WR VXFFHVVIX00\ FRPPXQLFDWH ZLWK WKH 3U FLV &W DQG NQRZ ZKLFK VHULD0 , 2 GHYLFH RQ \RXU KRVW FRPSXWHU \RX DUH XVLQJ
- <RX KDYH LQVWDOOHG 173 YHUVLRQ RQ \RX KRVW FRPSXWHU
- <RX KDYH SHUIRUPHG DQ\ NHUQH0 PRGLILFDWLRQV DQG 173 UHFRPSLODWLRQV WKDW PD\ EH QHHGHG WR VXSSRUW 336 GULYHQ ' & ' RSHUDWLRQ RQ \RXU S0DWIRUP
- <RX KDYH SHUIRUPHG %DVLF 173 6HWXS DV GHVFULEHG SUHYLRXV0\ LQ WKLV &KDSWHU

%DVLF 173 6HWXS LV UHTXLUHG EHFDXVH RSHUDWLRQ RI WKH 173 ZLWK 336 GULYHQ ' & ' LQ SXW PHDVXUHPHQWV LV D0ZD\V LQ FRQMXQFWLRQ ZLWK RQH RI WKH VWDQGDUG 173 UHIHUHQFH F0RFN GULYHUV VXFK DV WKH 7UXH7LPH GULYHU 173 QHHGV WKH WLPH RI GD\ PHVVDJH IURP WKH 173 UHIHUHQFH F0RFN GULYHU WR GHWHUPLQH WKH FRUUHFW VHFRQG IRU WKH ULVLQJ HGJH RI WKH QH[W 336

7R FRPS0HWH WKH VHWXS LW RQ0\ UHPDLQV WR HGLW WKH QWS FRQI ILO VR WKDW 173 ZL00 XVH WKH 336 NHUQH0 PHDVXUHPHQWV

&RQILJXUH 173
+DYLQJ SHUIRUPHG WKH VHWXS VWHSV LQ %DVLF 173 6HWXS QRZ \RX PXVW HGLW WKH QWS FRQI ILO ZKLFK QWSG WKH 173 GDHPRQ 0RRNV IRU E\ GHIDX0W LQ WKH WKH HWF GLUHFWRU\ )LQG WKH WZR 0LQHV ZKLFK \RX DGGHG SUHYLRXV0\ LQ %DVLF 173 6HWXS DQG LQVHUW WKLV 0LQH LPPH GLDWH0\ EHIRUH WKHP

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pps /dev/tr e0 assert
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7KLV 0LQH WHO0V QWSG WR XVH WLPHWDJV WKDW WKH NHUQH0 FDSWXUHV RQ WKH SRVLWLYH WUDQVLWLRQ RI WKH ' & ' 0LQH RI WKH VHULD0 , 2 SRUW SRLQWHG WR E\ GHY WUXH ,W ZL00 DVVRFLDWH WKHVH 336 PHDVXUHPHQWV ZLWK WKH UHIHUHQFH F0RFN GULYHU ZKLFK KDV WKH ¶SUHIHU· NH\ZRUG ,Q WKLV H[DPS0H WKDW ZRX0G EH WKH 7UXH7LPH UHIHUHQFH F0RFN GULYHU WKDW ZDV VHWXS LQ %DVLF 173 6HWXS

5H VWDUW QWSG WR KDYH LW EHJLQ XVLQJ WKH 3U FLV &W DV WKH SUHIHUUHG V\QFKURQL]DWLRQ SHHU ZLWK 336 PHDVXUHPHQW FDSDELOLW\ HQDE0HG

8VH WKH 173 XWL0LW\ QWST WR FKHFN WKDW QWSG LV DE0H WR FRPPXQLFDWH ZLWK 3U FLV &W $IWHU LVVXLQJ WKH FRPPDQG

n

\RX ZL00 VHH WKH QWST FRPPDQG SURPSW

6HWXS ZLWK 173 RQ : LQGRZV 17

R FRQILJXUH \RXU : LQGRZV 17 FRPSXWHU WR XVH \RXU 3U FLV &W \RX PXVW KDYH VXFFHVVIX00\ FRPS0HWHG WKH %DVLF ,QWD00DWLRQ SURFHGXUHV LQ &KDSWHU 7KLV PDQXD0 LV QRW D ¶+RZ 7R· RQ LQVWD00LQJ DQG XVLQJ 173 EDVLF DSSURDFKHV WR 173 FRQILJXUDWLRQ IRU RSHUDWLRQ ZLWK WKH 3U FLV &W ZL00 EH GHVFULEHG KHUH ,QVWD00DWLRQ PXVW EH SHUIRUPHG E\ D XVHU ZLWK DGPLQLVWUDWLYH SULYL0HGJHV RQ WKH V\VWHP ,I \RX KDYH QHYHU XVHG 173 WKHQ \RX VKRX0G VSHQG VRPH WLPH UHDGLQJ WKH RQ 0LQH GRFXPHQWV DW

KWWS ZZZ QWS RUJ

0DQ\ SURE0HPV PD\ D0VR EH VR0YHG E\ WKH KH0SIX0 SHRS0H ZKR SDUWLFLSDWH LQ WKH ,QWHU QHW QHZV JURXS GHYRWHG WR 173

QHZV \RXBQHZVBVHUYHU FRPS SURWRFR0V WLPH QWS

> 1RWH
>
> : LQGRZV 17 DQG 173 9HUVLRQ DUH UHTXLUHG IRU RSHUDWLRQ XVLQJ WKH

VDJH RXWSXW E\ VHQGLQJ WKLV FRPPDQG IURP \RXU WHUPLQDO SURJUDP WR WKH 3U FLV &W

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c  m          > L >
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7KH 3U FLV &W ZLOO UHVSRQG

```
K   > L >
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1RZ VHQG WKLV FRPPDQG WR FKDQJH WKH WLPH RI GD\ PHVVDJH IRUPDW WR 7ULPE0H 3D0L VDGH HPX0DWLRQ

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m l    mbl    > L >
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7KH 3U FLV &W ZLOO UHVSRQG

```
K   > L >
```

1RZ \RX QHHG WR PDNH VXUH WKDW WKH VHULDO , 2 SRUW SDUDPHWHUV RI WKH 3U FLV &W DUH FRPSDWLE0H ZLWK WKH 7ULPE0H 3D0LVDGH 173 UHIHUHQFH F0RFN GULYHU 2 E\ VHQGLQJ

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      > L >
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he 3U FLV &W VKRX0G UHVSRQG

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600, , ,    > L >
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,I WKH FRPPDQG UHVSRQGV ZLWK GLIIHUHQW VHWWLQJV WKHQ \RX PXVW FKDQJH WKHP XVLQJ WKH FRPPDQG

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     600, , ,    > L >
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> 1RWH
>
> ,I \RX KDG WR FKDQJH WKH VHWWLQJV \RX ZLOO QRZ QHHG WR FKDQJH WKH VHW WLQJV LQ \RXU WHUPLQDO SURJUDP WR PDWFK WKH QHZ RQHV LQ RUGHU WR EH DE0H WR FRQWLQXH FRPPXQLFDWLQJ ZLWK WKH 3U FLV &W

9HUL\ SURSHU FRQILJXUDWLRQ RI WKH HPX0DWLRQ PRGH E\ WXUQLQJ WKH WLPH RI GD\ PHVVDJH RXWSXW EDFN RQ

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c  m   n   > L >
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6LQFH WKH 7ULPE0H 3D0LVDGH XVHV D ELQDU\ VHULDO SURWRFR0 \RX ZLOO QRW EH DE0H WR XQGHU VWDQG WKH FKDUDFWHUV ZKLFK ZLOO EH GLVS0D\HG E\ \RXU WHUPLQDO SURJUDP <RX QHHG RQ0\ YHULI\ WKDW FKDUDFWHUV DUH EHLQJ VHQW RQFH HDFK VHFRQG

, P SRUWDQW

1RZ WXUQ WKH WLPH RI GD\ PHVVDJH RXWSXW EDFN RII 7KH 3DOLVDGH UHIHU HQFH F0RFN GULYHU XVHV WKH 576 DVVHUWLRQ HYHQW PHVVDJHV IRU V\QFKURQL]D WLRQ DQG WKH FRQWLQXRXV WLPH RI GD\ PHVVDJHV FDQ LQWHUIHUH ZLWK WKHVH.

c m > L >

7KH 3U FLV &W LV QRZ FRQILJXUHG IRU RSHUDWLRQ ZLWK WKH 7UL PEOH 3DOLVDGH 173 UHIHU HQFH F0RFN GULYHU

1RWH

6KXW GRZQ \RXU WHUPLQDO SURJUDP QRZ VR WKDW LW GRHV QRW LQWHUIHUH ZLWK WKH 173 UHIHUHQFH F0RFN GULYHU 0DWHU

&RQILJXUH 173

1RZ \RX PXVW HGLW WKH QWS FRQI ILOH ZKLFK QWSG H[H WKH 173 GDHPRQ 0RRNV IRU E\ GH IDXOW LQ WKLV GLUHFWRU\ RQ \RXU V\VWHP SDUWLWLRQ ?ZLQQW?V\VWHP ?GULYHUV?HWF ,I \RXU 173 LQVWDOODWLRQ S0DFHG WKLV ILOH LQ D GLIIHUHQW S0DFH \RX PXVW ILQG LW DQG HGLW LW G

GLUHFWRU\ RI \RXU :LQGRZV 17 SDUWLWLRQ)URP D FRQVROH ZLQGRZ DIWHU LVVXLQJ WKH FRPPDQG

n

\RX ZLOO VHH WKH QWST FRPPDQG SURPSW

n >

8VH WKH FRPPDQG

WR GLVSOD\ WKH 173 SHHUV ZKLFK \RXU FRPSXWHU LV XVLQJ 2QH RI WKHP VKRXOG EH WKH 7ULPE0H 3D0LVDGH UHIHUHQFH F0RFN GULYHU ZKLFK \RX KDYH WXVW FRQILJXUHG <RX VKRX0G YHULI\ WKDW LV LV EHLQJ ¶UHDFKHG· <RX PD\ KDYH WR FRQWLQXH LVVXLQJ WKH SHHUV FRPPDQG IRU D PLQXWH RU WZR EHIRUH \RX ZLOO VHH WKH ¶UHDFK· FRXQW LQFUHPHQW ,I \RX KDYH RWKHU SHHUV FRQILJXUHG YHULI\ WKDW WKH RIIVHW LQIRUPDWLRQ IRU WKH 3D0LVDGH SHHU DQG \RXU RWKHU SHHUV LV LQ DJUHHPHQW WR ZLWKLQ D IHZ PLOOLVHFRQGV DVVXPLQJ WKDW WKH RWKHU SHHUV DUH V\QFKURQL]HG WR WKDW 0HYH0 RI DFFXUDF\

,W PD\ D0VR EH XVHIX0 WR VWDUW WKH 173 GDHPRQ LQ ¶GHEXJ· PRGH QWSG ²G WR FRQILUP VXFFHVVIX0 FRQILJXUDWLRQ 7KH GHEXJ YHUVLRQ RI WKH 173 GDHPRQ LV 0RFDWHG LQ WKH GHEXJ VXE GLUHFWRU\ RI \RXU 173 GLUHFWRU\ 5HIHU WR WKH 173 GRFXPHQWDWLRQ IRU GHWDLOHG XVDJH RI WKH GHEXJ XWLOLWLHV

1 RWHV

&KDSWHU

5

6HWXS ZLWK 7LPH6HUY RQ : LQGRZV 17

7R FRQILJXUH \RXU : LQGRZV 17 RU 0DWHU FRPSXWHU WR XVH \RXU 3U FLV &W ZLWK 7LPH6HUY D XWLOLW\ FRQWDLQHG RQ WKH 0LFURVRIW : LQGRZV 17 6HUYHU 5HVRXUFH . LW & ' 52 0 \RX PXVW KDYH VXFFHVVIX00\ FRPSOHWHG WKH %DVLF ,QVWDO0 0DWLRQ SURFHGXUHV LQ &KDSWHU 7KLV PDQXDO LV QRW D ¶+RZ 7R· RQ LQVWDOOLQJ DQG XVLQJ 7LPH6HUY EDVLF DSSURDFKHV WR 7LPH6HUY FRQILJXUDWLRQ IRU RSHUDWLRQ ZLWK WKH 3U FLV &W ZL00 EH GHVFULEHG KHUH ,QVWDOODWLRQ PXVW EH SHUIRUPHG E\ D XVHU ZLWK DGPLQLVWUDWLYH SULYL0HGJHV RQ WKH V\VWHP ,I \RX KDYH QHYHU XVHG 7LPH6HUY WKHQ \RX VKRX0G VSHQG VRPH WLPH UHDGLQJ WKH RQ 0LQH GRFXPHQWV DW

KWWS ZZZ QLFHWLHV FRP WLPHVHUY KWP

> 1RWH
>
> : LQGRZV 17 RU 0DWHU LV UHTXLUHG IRU RSHUDWLRQ XVLQJ 7LPH6HUY 7LPH 6HUY PXVW EH WKH RQ\ F0RFN V\QFKURQL]DWLRQ SURJUDP UXQQLQJ RQ WKH V\V WHP 7LPH6HUY ZL00 LQWHUIHUH ZLWK WKH RSHUDWLRQ RI F0RFN V\QFKURQL]DWLRQ YLD 173 VR 173 VKRX0G EH VWRSSHG RU GLVDE0HG ZKHQ 7LPH6HUY LV UXQ QLQJ

7KH 3U FLV &W FDQ HPX0DWH WZR RI WKH F0RFN W\SHV DFFHSWDE0H WR 7LPH6HUY 7UXH7LPH DQG 6HFWUDFRP : : 9%)RUPDW

7LPH6HUY 6HWXS

,I \RX KDYH EHHQ DE0H WR VXFFHVVIX00\ FRPPXQLFDWH ZLWK WKH 3U FLV &W DQG NQRZ ZKLFK VHULD0 , 2 GHYLFH RQ \RXU KRVW FRPSXWHU \RX DUH XVLQJ DQG \RX KDYH VXFFHVVIX00\ LQ VWD00HG 7LPH6HUY VHWXS XVLQJ WKH 7UXH7LPH RU 6SHFWUDFRP : : 9%)RUPDW

)LQDOO\ IRU GH EXJ SXUSRVHV HQDEOH 0RJJLQJ RI LQIRUPDWLRQDO HYHQWV E\ VFURROLQJ GRZQ WR WKH ¶/RJ · VHFWLRQ DQG UHPRYH WKH VHPL FRORQ IURP WKH HQWU\ ¶/RJ \HV· $GG D VHPL FRORQ WR WKH EHJLQQLQJ RI WKH ¶/RJ QR· OLQH 6DYH DQG FORVH WKH ILOH

,I 7LPH6HUY LV FXUUHQW\ UXQQLQJ VWRS LW XVLQJ 6HUYLFHV LQ WKH &RQWURO 3DQHO 0DNH 7LPH6HUY XSGDWH LWV VHWWLQJV IURP WKH QHZ WLPHVHUY LQL ILOH E\ LVVXLQJ WKLV FRPPDQG IURP D FRQVROH ZLQGRZ

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timeserv  pdate
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5H VWDUW 7LPH6HUY XVLQJ 6HUYLFHV LQ WKH &RQWURO 3DQHO 8VH 6WDUW ! 3URJUDPV ! $GPLQLVWUDWLYH 7RROV ! (YHQW 9LHZHU WR YHULI\ WKDW 7LPH6HUY LV DEOH WR XSGDWH WKH V\VWHP F0RFN E\ YLHZLQJ WKH 7LPH6HUY VRXUFHG HQWULHV LQ WKH DSS0LFDWLRQV 0RJ $ QHZ HYHQW VKRX0G HQWHU WKH 0RJ HYHU\ ILIWHHQ PLQXWHV ,W VKRX0G LQGLFDWH WKDW WKH WLPH KDV EHHQ VHW E\ DQ HQWU\ 0LNH WKLV

7LPH VHW RII VHW ! VHFRQG

RU WKLV

7LPH VHW RII VHW VHFRQG

GHSHQGLQJ XSRQ KRZ IDU RII \RXU FRPSXWHU·V F0RFN ZDV ZKHQ 7LPH6HUY FRUUHFWHG LW

(08/	6KRZ WKH FRQWLQXRXV RQFH SHU VHFRQG WLPH RI GD\ HPXODWLRQ PRGH
(08/ [	6HW WKH FRQWLQXRXV RQFH SHU VHFRQG WLPH RI GD\ HPXODWLRQ PRGH ZKHUH [PD\ EH 121(63(&75$&20 75,0%/(RU 758(7,0(
(9(17	6KRZ WKH VWDWXV RI HYHQW WLPHWDJJLQJ
(9(17 [	(QDEOH RU GLVDEOH HYHQW WLPHWDJJLQJ ZKHUH [PD\ EH 21 RU 2))

5(630 2 ' ([	6HW WKH FRPPDQG UHVSRQVH PRGH ZKHUH [PD\ EH 7(56(RU 9(5%26(
6(77,1*6	6KRZ DOO WKH FXUUHQW XVHU VHWWLQJV
6367$7	6KRZ WKH FXUUHQW VLJQDO SURFHVVRU SDUDPHWHUV
7,0(	6KRZ WKH FXUUHQW WLPH LQ QDWLYH 3U FLV &W WLPH RI GD\ IRUPDW
702 ' (	6KRZ WKH WLPH PRGH
702 ' ([	6HW WKH WLPH PRGH ZKHUH [PD\ EH *36 87& /2&$/ RU /2&$/0$1
83/2$ '	,QLWLDOLVH WKH)/$6+ XSORDG SURFHVV
9(5	6KRZ WKH ILUPZDUH DQG KDUGZDUH YHUVLRQV

'HWDLOHG &RPPDQG 'HVFULSWLRQV

&$/
7KLV FRPPDQG DOORZV WKH XVHU WR TXHU\ DQG VHW WKH YDOXH RI D FDOLEUDWLRQ RIIVHW WKDW WKH 3U FLV &W FDQ PDNH WR WKH 3U FLV &W WLPLQJ RXWSXWV ,W FDQ EH XVHIXO IRU FRPSHQVDWLQJ YDULRXV GHOD\V SUHVHQW LQ D V\VWHP 7KH XQLWV IRU WKH RIIVHW DUH VHFRQGV 7KH DOORZDEOH UDQJH LV VHFRQGV WR VHFRQGV ZKHUH D SRVLWLYH FDOLEUDWLRQ RIIVHW PHDQV WKDW WKH 3U FLV &W WLPLQJ RXWSXWV ZLOO EH DGYDQFHG LQ WLPH 7KH 3U FLV &W SHUIRUPV WKLV DGMXVWPHQW ZLWK D UHVROXWLRQ RI DSSUR[LPDWHO\ QDQRVHFRQGV 7KH H[DPSOH UHVSRQVH LQGLFDWHV WKDW WKH RXWSXWV DUH FXUUHQWO\ UHWDUGHG E\ PLFURVHFRQGV UHODWLYH WR 87& DV UHFHLYHG IURP WKH &'0$ EDVH VWDWLRQ

,Q XUEDQ DUHDV GLVWDQFHV WR EDVH VWDWLRQV VKRXOG QRUPDOO\ EH 0HVV WKDQ WZR PLOHV ,W FRXOG PDNH VHQVH WR VHW WKH FDOLEUDWLRQ RIIVHW WR SHUKDSV PLFURVHFRQGV KDOI RI WKH DSSUR[LPDWH 0LJKW VSHHG WUDQVLW WLPH RYHU WZR PLOHV WR LPSURYH WKH DEVR0XWH DFFXUDF\ RI WKH 3U FLV &W ,I \RX KDYH VRPH ZD\ RI NQRZLQJ KRZ IDU WKH F0RVHVW EDVH VWDWLRQ LV IURP \RXU VLWH \RX FRX0G PDNH D PRUH HGXFDWHG DGMXVWPHQW XVLQJ WKH DSSUR[LPDWH SURSDJDWLRQ GH0D\ RI RQH QDQRVHFRQG SHU IRRW RU QDQRVHFRQGV SHU PHWHU DQG WKH &$/ FRPPDQG 6HW YD0XH LV UHWDLQHG LQ QRQ YR0DWLOH) /$6+ PHPRU\

Usage:

4XHU\	AL > L >
3U FLV &W UHVSRQVH	-.000 345 > L >
6HW	AL .000 5 > L >
3U FLV &W UHVSRQVH	K > L >

Factory Default Setting:

&+$11(/6(7
7KLV FRPPDQG DOORZV WKH XVHU WR VHW WKH IUHTXHQF\ FKDQQH0V WKDW WKH VLJQD0 SURFHVVRU VHDUFKHV LQ RUGHU WR ILQG D WLPLQJ VLJQD0 0RVW XVHUV ZLOO QRW QHHG WR XVH WKLV FRPPDQG DV WKH GHIDX0W VHWWLQJ LV IRU WKH 1RUWK $PHULFDQ IUHTXHQF\ FKDQQH0 VHW 7KHUH DUH WKUHH DOORZDEOH HQWULHV $ IRU 1RUWK $PHULFD . IRU .RUHD S0XV 1RUWK $PHULFD DQG , IRU ,QGLD 6HW YD0XH LV UHWDLQHG LQ QRQ YR0DWLOH) /$6+ PHPRU\ .RUHDQ RU ,QGLDQ XVHUV ZLOO QHHG WR FKDQJH WKH GHIDX0W VHWWLQJ DV EH0RZ

Usage:

4XHU\	A L > L >
3U FLV &I UHVSRQVH	AM I A > L >
6HW	A L K > L >
3U FLV &I UHVSRQVH	K > L >

6HW A L I > L >
3U FLV &I UHVSRQVH K > L >

Factory Default Setting: 1257+ $0(5,&$

7KLV LV WKH VHWWLQJ DV VKLSSHG E\ WKH IDFWRU\ EXW ZLOO QRW EH DIIHFWHG E\ WKH ,QGLFDWRU 0RGH %XWWRQ VHH $SSHQGL[& 5HVWRULQJ)DFWRU\ ' HIDXOW 6HWWLQJV 2QFH WKH XVHU PRGLILHV WKLV VHWWLQJ LW ZLOO VWD\ WKDW ZD\ UHJDUGOHVV RI UHVHWWLQJ IDFWRU\ GHIDXOWV

&7,0(
7KLV FRPPDQG DOORZV WKH XVHU WR TXHU\ DQG VHW WKH VWDWXV RI WKH FRQWLQXRXV RQFH SHU VHFRQG WLPH RI GD\ PHVVDJH RXWSXW 7KH VWDWXV LV HLWKHU 21 RU 2)) 6HW YDOXH LV UHWDLQHG LQ QRQ YRODWLOH)/$6+ PHPRU\

Usage:

4XHU\ IM > L >
3U FLV &W UHVSRQVH > L >

6HW IM > L >
3U FLV &W UHVSRQVH K > L > 7KHQ WKH FRQWLQXRXV RQFH SHU VHFRQG WLPH RI GD\ RXWSXW PHVVDJH VWDUWV LQ WKH IRU PDW SUHYLRXV\ VHOHFWHG XVLQJ WKH (08/ FRPPDQG

Factory Default Setting: 21

'6767$57
7KLV FRPPDQG DOORZV WKH XVHU WR TXHU\ DQG VHW WKH VWDUW WLPH IRU WKH ' D\OLJKW 6DYLQJV 7LPH WUDQVLWLRQ 7KLV VHWWLQJ LV XVHG WR FRPSXWH /RFDO 7LPH LI 702 '(/2&$/0$1 VHH 702 '(FRPPDQG 6HW YDOXH LV UHWDLQHG LQ QRQ YRODWLOH)/$6+ PHPRU\ 6\QD[IRU WKH FRPPDQG LV '6767$57 P V K 7KH PRQWK RI WKH \HDU WKH 6XQGD\ RI WKH PRQWK DQG WKH KRXU RI WKH WUDQVLWLRQ DOO QHHG WR EH VHW)RU H[DPSOH LQ WKH 8QLWHG 6WDWHV WKH ' 67 VWDUW GDWH LV WKH ILUVW 6XQGD\ LQ $SULO DW D P 7R VHW WKLV WKH FRPPDQG ZRXOG EH '6767$57 <RX PD\ GLVDEOH ' 67 E\ VHWWLQJ HLWKHU WKH '6767$57 RU '676723 SDUDPHWHUV WR)RU H[DPSOH '6767$57

0RQWK LV
6XQGD\ LV IRU st nd

FHLYH WKH UHVSRQVH ¶(5525 &5! /)!· DQG DUH LJQRUHG ,I &7,0(LV 21 LWV R

' $& &RQWURO 2YHU 5DQJH

7KLV ELW LQGLFDWHV WKDW WKH H0HFWURQLF IUHTXHQF\ FRQWURO ' $& IRU WKH 7&;2 KDV UHDFKHG HLWKHU WKH KLJK

Usage:

4XHU &H L A > L >

3U FLV &H 0 0 > L >

w

U FLV &H YDVSRQVH

6HW L A 4, 4 /HDS FXUUHQW IXWXUH

3U FLV &H UHVSRQVH K

LY

Factory Default Setting: 3TLQ2SR3G54 0 TQ(U)TJ3.72 TQ( )TJ5.4 0 TQ( )Tj2.76

7KHUH LV D 0HDS VHFRQG LQVHUWLRQ VFKHGXOHG IRU ' HFHPEHU)RU WKH VHFRQG KDOI RI WKH IDFWRU\ ZLOO VHW 0HDS $IWHU ' HFHPEHU WKH IDFWRU\ ZLOO VHW 0HDS 7KLV ZLOO HQVXUH D SUHFLVH 0HDS VHFRQG WUDQVLWLRQ RQ ' HFHPEHU st DQG SURSHU RSHUDWLRQ DIWHUZDUGV 7KLV IDFWRU\ VHWWLQJ ZLOO QRW EH DIIHFWHG E\ WKH ,QGL FDWRU 0RGH %XWWRQ VHH $SSHQGL[& 5HVWRULQJ)DFWRU\ ' HIDXOW 6HWWLQJV 2QFH WKH XVHU PRGLILHV WKLV VHWWLQJ LW ZLOO VWD\ WKDW ZD\ UHJDUGHVV RI UHVHWWLQJ IDFWRU\ GHIDXOWV

/2

7KLV FRPPDQG DOORZV WKH XVHU WR VHW RU TXHU\ WKH 0RFD0 RIIVHW VHWWLQJ 7KLV VHWWLQJ LV XVHG WR FRPSXWH /RFD0 7LPH LI 702 ' (/2&$/0$1 VHH 702 ' (FRPPDQG 7KH YD0XHV HQWHUHG FDQ UDQJH IURP WR 7KH PLQXWHV ILHOG PXVW EH HLWKHU RU 6HW YD0XH LV UHWDLQHG LQ QRQ YR0DWLOH) /ÞLW88 0 TQ(X)TTQ( )TJ3.72 0 6 2T684

3257

7KLV FRPPDQG DOORZV WKH XVHU WR TXHU\ DQG VHW WKH FXUUHQW VHULDO , 2 SRUW VHWWLQJV &KDQJHV WR WKH VHWWLQJV WDNH SODFH LPPHGLDWHO\ DQG DUH UHWDLQHG LQ QRQ YRODWLOH) / $6+ PHPRU\ <RX PXVW FKDQJH \RXU WHUPLQDO SURJUDP WR PDWFK WKHVH VHWWLQJV LQ RUGHU WR FRQWLQXH WR FRPPXQLFDWH ZLWK WKH 3U FLV &W 5HVWRULQJ WKH IDFWRU\ GHIDXOW VHWWLQJV PD\ EH QHFHVVDU\ VKRXOG \RX IRUJHW WKH FXUUHQW VHWWLQJV 6HH $SSHQGL[% ² ,QGLFDWRU 0RGH %XWWRQ IRU GH WDLOV RQ UHVWRULQJ WKH IDFWRU\ GHIDXOW VHWWLQJV 7KH EDG UDWH QXPEHU RI GDWD ELWV SDULW\ DQG QXPEHU RI VWRS ELWV PD\ EH VHW

%DXG UDWH PD\ EH
1XPEHU RI GDWD ELWV PD\ EH RU
3DULW\ PD\ EH (HYHQ 2 RGG RU 1 QRQH
1XPEHU RI VWRS ELWV PD\ EH RU

Usage:

```
4XHU\                    > L >
3U FLV &W UHVSRQVH       600, , ,    > L >
6HW                       00,7, ,    > L >
3U FLV &W UHVSRQVH       K   > L >
```

Factory Default Setting: 1

5(&$&48,5(

7KLV FRPPDQG DOORZV WKH XVHU WR IRUFH DQRWKHU VLJQDO SURFHVVRU DFTXLVLWLRQ VHTXHQFH DQG LV JHQHUDOO\ RQO\ XVHG LQ WJKWO\ HPEHGGHG V\VWHPV 7KLV ZLOO FDXVH WKH XQLW WR I0\ ZKHH0 XQWL0 LW UHDFTXLUHV D VLJQD0

Usage:

```
4XHU\                  1 $
3U FLV &I UHVSRQVH     1 $
6HW                      A UI     > L >
3U FLV &I UHVSRQVH      K   > L >
```

Factory Default Setting: 1 $

5(6(7

7KLV VHW RQ0\ FRPPDQG DOORZV WKH XVHU WR SHUIRUP D VRIWZDUH UHVHW RI WKH XQLW 9DOG ZLWK 3UDFLV &W) : Y RU 0DWHU

Usage:

```
4XHU\                  1 $
3U FLV &W UHVSRQVH     1 $
6HW                              > L >
3U FLV &W UHVSRQVH      K
```

Factory Default Setting: 1 $

Usage:

4XHU\	IM > L >
3U FLV &W UHVSRQVH	6 000 55 3 45 0 + 3 L > L >
6HW	1 $
3U FLV &W UHVSRQVH	1 $

Factory Default Setting: 1 $

702'(

7KLV FRPPDQG DOORZV WKH XVHU WR TXHU\ DQG VHW WKH FXUUHQW F0RFN WLPH PRGH 6HW YD0XH LV UHWDLQHG LQ QRQ YR0DWL0H)/$6+ PHPRU\ 7KH VHWWLQJ RI WKH WLPH PRGH KDV QR HIIHFW RQ WKH FRQWLQXRXV RQFH SHU VHFRQG WLPH RI GD\ PHVVDJHV VHQW ZKHQ HPX0DWLQJ WKH 6SHFWUDFRP 7ULPE0H RU 7UXH7LPH F0RFN W\SHV 7KH\ DUH D0ZD\V VHQW LQ 87& WLPH 7KH WLPH PRGH VHWWLQJ DIIHFWV WKH QDWLYH &7,0((9(17 DQG 7,0(WLPH RI GD\ PHVVDJHV 7KHUH DUH IRXU DYDL0DE0H WLPH PRGHV

*36 7KH *36 VHWWLQJ ZL00 FDXVH WKH WLPH RI GD\ WR EH GLVS0D\HG ZLWKRXW WKH 0HDS VHFRQGV ZKLFK KDYH EHHQ LQVHUWHG EHWZHHQ WKH 87& DQG *36 WLPHVFD0HV VLQFH WKH EHJLQQLQJ RI *36 WLPH -DQXDU\ $W WKH WLPH RI WKLV ZULWLQJ 0HDS VHFRQGV KDYH EHHQ DSS0LHG WR 87& VLQFH WKH *36 HSRFK VR *36 (R)TJ5.88 0 Td( )TJ3.96 0 Td(*)TJ9 0 Td(3

83/2$'
7KLV VHW RQ0\ FRPPDQG DOORZV WKH XVHU WR XS0RDG D QHZ SURJUDP WR WKH)/$6+ PHP RU\ RI WKH 3U FLV &W 5HIHU WR $SSHQGL[% ² 8SJUDGLQJ WKH)LUPZDUH IRU GHWDL0HG LQVWUXF WLRQV IRU SHUIRUPLQJ WKH 83/2$' SURFHGXUH

Usage:

&0RFN (PX0DWLRQ 0RGHV

7KH 3U FLV &W HPX0DWHV WKUHH LQGXVWU\ VWDQGDUG FRQWLQXRXV RQFH SHU VHFRQG WLPH RI GD\ PHVVDJH IRUPDWV LQ DGGLWLRQ WR LWV RZQ QDWLYH IRUPDW &XUUHQW\ WKHVH HPX0DWHG IRUPDWV DUH

121(
7KLV LV WKH QDWLYH 3U FLV &W WLPH RI GD\ PHVVDJH IRUPDW ,W LV VHQW RQFH SHU VHFRQG ZLWK WKH 7)20 FKDUDFWHU EHLQJ WKH RQ WLPH FKDUDFWHU WKDW LV VHQW GXULQJ WKH ILUVW PLOOL VHFRQG RI HDFK VHFRQG

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  YYYY DDD     MM     zZZ    C    LF
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7 LV WKH 7LPH)LJXUH 2I 0HULW 7)20 FKDUDFWHU DQG LV RQH RI

LQGLFDWHV HUURU !	PLOOLVHFRQGV RU XQV\QFKURQL]HG FRQGLWLRQ
LQGLFDWHV HUURU	PLOOLVHFRQGV
LQGLFDWHV HUURU	PLOOLVHFRQG
LQGLFDWHV HUURU	PLFURVHFRQGV

<<<<	LV WKH \HDU
' ' '	LV WKH GD\ RI WKH \HDU
++	LV WKH KRXU RI WKH GD\
0 0	LV WKH PLQXWH RI WKH KRXU
66	LV WKH VHFRQG RI WKH PLQXWH
]	LV WKH VLJQ RI WKH RIIVHW WR 87& LPSOLHV WLPH LV DKHDG RI 87&
==	LV WKH PDJQLWXGH RI WKH RIIVHW WR 87& LQ XQLWV RI KD0I KRXUV 1RQ]HUR RQ0\ ZKHQ 7LPH 0RGH LV /RFD0
P	LV WKH 7LPH 0RGH FKDUDFWHU DQG LV RQH RI

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*    *36
/    /RFD0
8    87&
```

6SHFWUDFR P
7KLV LV : : 9%)RUPDW DQG LW LV VHQW RQFH HDFK VHFRQG ZLWK WKH 0HDGLQJ &5! EHLQJ WKH RQ WLPH FKDUDFWHU ZKLFK LV VHQW GXULQJ WKH ILUVW PLOOLVHFRQG RI HDFK VHFRQG 7KH WLPH PRGH LV D0ZD\V 87& LQ WKLV HPX0DWHG PRGH

```
  > L >          MM          zz    > L >
```

4 LV WKH 7LPH 4XD0LW\ FKDUDFWHU

"	LQGLFDWHV XQV\QFKURQL]HG
	LQGLFDWHV 0RFNHG VSDFH FKDUDFWHU

' ' '	LV WKH GD\ RI \HDU
++	LV WKH KRXU RI WKH GD\

```
00      LV WKH PLQXWH RI WKH KRXU
66      LV WKH VHFRQG RI WKH PLQXWH
]]      LV WKH WLPH]RQH UHODWLYH WR 87& ZKLFK LV DZD\V VLQFH WLPH PRGH LV DZD\V
        87& LQ WKLV HPXODWLRQ PRGH
```

```
7UL PEOH
7KLV IRUPDW LV RQO\ XVHIXO LQ FRQWXQFWLRQ ZLWK WKH 7UL PEOH 3DOLVDGH 173 UHIHUHQFH
FORFN GULYHU DV LW LV QRW KXPDQ UHDGDEOH ,W LV VHQW LQ 7UL PEOH 6WDQGDUG ,QWHUIDFH 3URWR
FRO 76,3 XVLQJ D ELQDU\ SDFNHW IRUPDW 3UL PU\ 173 3NW ) $ ' ,W VHQGV SDFNHWV IRU
ERWK WKH &76 DVVHUWLRQ HYHQWV DQG LI &7,0 ( 21 WKH 336 HYHQWV ,W LV UHFRPPHQGHG
WKDW 336 HYHQWV EH WXUQHG RII ZKHQ XVLQJ WKLV HPXODWLRQ PRGH E\ VHWWLQJ &7,0 ( 2)) 7KHVH
SDFNHWV FRQWDLQ D WLPHVWDPS ZLWK QDQRVHFRQG UHVROXWLRQ : KHQ WKLV PRGH LV VH
OHFWHG WKH QDWLYH 3U FLV &W &76 LQSXW HYHQW WLPHWDJJLQJ IXQFWLRQ LV GLVDEOHG 7KH 7LPH
0RGH LV DZD\V 87& LQ WKLV HPXODWLRQ PRGH

%\WH 5HFHLYHU 6WDWXV RI 173 3NW ) $ ' FRQWDLQV WKH V\QFKURQL]DWLRQ VWDWXV LQ
IRUPDWLRQ 7KH 3U FLV &W XVHV WKUHH RI WKHVH FRGHV DQG WKH\ DUH VHW LQ WKH IR0RZLQJ
PDQQHU

&RGH 6WDWLF 6DW 7LPLQJ 0RGH LV VHW ZKHQ WKH WLPH HUURU LV PV
&RGH $SSUR[LPDWH 7LPH LV VHW ZKHQ WKH WLPH HUURU LV PV
&RGH 6WDUXS LV VHW ZKHQ WKH WLPH HUURU LV ! PV

7UXH7LPH
7KLV IRUPDW LV VHQW RQFH HDFK VHFRQG ZLWK WKH &5! EHLQJ WKH RQ WLPH FKDUDFWHU
ZKLFK LV VHQW GXULQJ WKH ILUVW PLOLVHFRQG RI HDFK VHFRQG 7KH 7LPH 0RGH LV D0ZD\V 87&
LQ WKLV HPXODWLRQ PRGH

    >       MM       > L >

 62+!      LV WKH $6&,, 6WDUW RI +HDGHU &75/ $ [ FRQWUR FKDUDFWHU
' ' '      LV WKH GD\ RI \HDU
++         LV WKH KRXU RI WKH GD\
00         LV WKH PLQXWH RI WKH KRXU
66         LV WKH VHFRQG RI WKH PLQXWH
4          LV WKH 7LPH 4XD0LW\ FKDUDFWHU DQG PD\ EH RQH RI WKH IR0RZLQJ
           "          LQGLFDWHV WKH XQV\QFKURQL]HG FRQGLWLRQ
                      LQGLFDWHV HUURU PV
                      LQGLFDWHV HUURU PV
                      LQGLFDWHV HUURU PV
                      LQGLFDWHV HUURU PV VSDFH FKDUDFWHU
```

8SJUDGLQJ WKH)LUP ZDUH

8 . Z"$

3HUIRUPLQJ WKH 8SJUDGH

&RQILJXUH \RXU WHUPLQDO SURJUDP DQG WKH 3U FLV &W WR FRPPXQLFDWH DW WKH GHVLUHG EDXG UDWH E\ XVLQJ WKH VHWWLQJV IDFLOLW\ IRU \RXU WHUPLQDO SURJUDP DQG WKH FRP PDQG IRU WKH 3U FLV &W 5HIHU WR $SSHQGL[$ 6HULDO , 2 &RQWURO DQG 6WDWXV &RPPDQGV IRU GHWDLOV RQ XVLQJ WKH FRPPDQG

$IWHU HVWDEOLVKLQJ FRPPXQLFDWLRQV ZLWK WKH 3U FLV &W XVLQJ WKH GHVLUHG SRUW VHWWLQJV LVVXH WKH IROORZLQJ FRPPDQG WR LQLWLDWH WKH XSORDG

l a > L >

$IWHU LVVXLQJ WKLV FRPPDQG \RX ZLOO VHH WKH 3U FLV &W UHVSRQG ZLWK WKLV PHVVDJH

Wa n wnl a n XM M K w .
n l X w ll ab wnl a .

<RX ZLOO WKHQ VHH WKH 3U FLV &W VHQG WKH FKDUDFWHU ¶&· HYHU\ WKUHH VHFRQGV ZKLOH LW LV ZDL

1 RWHV

1RWH

,W LV DGYLVDEOH WR UHWXUQ WKH 3U FLV &W WR WKH 1RUPDO ,QGLFDWRU 0RGH
Æ W

1 RWHV

7HFKQLFDO 6SHFLILFDWLRQV

5HFHLYHU
&HOOXODU 0RELOH 5HFHLYH %DQG ² 0+]
7,$ (,$,6 & ' 0$ 3LORW DQG 6\QF FKDQQHOV

$QWHQQD
60$ EXONHDG WDFN =in W 0+] ô ZDYH KHOLFDO VWDQGDUG 5HPRWH0\ PRXQWDEOH PDJQHWLF EDVH DQWHQQD FDEOH DVVHPE0\ RSWLRQDO

/RFDO 2VFLOODWRU 7&;2 2&;2 RSWLRQDO
7LPH WR /RFN PLQXWHV W\SLFDO

336 7LPLQJ &KDUDFWHULVWLFV
- $FFXUDF\ PLFURVHFRQGV WR 87& W\SLFDO ZKHQ 0RFNHG)ULQJH DUHD UHFHSWLRQ PD\ GHJUDGH WKH DEVROXWH WLPLQJ DFFXUDF\ GXH WR LQFUHDVHG SURSDJDWLRQ GHOD\
- 6WDELOLW\ 7'(9W

,QGLFDWRUV

œ $0DUP(D)THTR)T624G)T660TL)T182 j5.040TD0TD0TG