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 U H O L D E L O L W \\
 y 0 D [L P X P M X Q F W L R Q W H P S H U D W X U
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 y , Q F O X G L Q J I D V W V R I W U H F R Y H U
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0 D [L P X P 5 D W L Q J V

| 3 D U D P H W H U | 6 \ P E R O | 9 D O X H |
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| & R O O H F W R U (P L W W H U % U H D N G R Z Q 9 R O W D J H | | 9 |
| ' & & R O O H F W R U & X U U H Q W 7& f & 7& f & | OLPLWHG E \ 7 ,& | \$ |
| ' L R G H) R U Z D U G & X U U H Q W 7& f & 7& f & | OLPLWHG E \ 7 , | \$ |
| & R Q W L Q X R X V * D W H (P L W W H U 9 R O W D J H f | | 9 |
| 7 U D Q V L H Q W * D W H (P L W W H U 9 R O W D J H W S - V ' | 9*(f | 9 |
| 7 X U Q R I I 6 D I H 2 S H ' U D W L Q J 7 f & | \$ U H D 9 | \$ |
| 3 X O V H G & R O O H F W R U & X U U H Q W 9 W S O L P L W H G E \ 7 | ,&0 | \$ |
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| 6 K R U W & L U F X L W : L W K V W D Q G 7 L P H 9*(9 & 9 9&(00 9 | 7 V F | V |
| 3 R Z H U ' L V V L S D W L R Q 7 M | f & 3 W R w f & | : |

| | | | |
|------------------------|--------------------------------|--------|--------------------|
| 2SHUDWLQJ -XQFWLRQ 7HP | SHUDWXUH | | 7 f & |
| 6WRUDJH 7HP | SHUDWXUH | 7v | f & |
| 6ROGHULQJ 7HP | SHUDWXUH LQ IURP FDVH IRU V | ZDYH V | ROGHULQJ PP f & |

(OHFWULFDO & KDUDFWULWLF VWDQV VRRWKH DZL*%H7 VSHFLILH

| | | | | | |
|---|---------|-------------------------------|------------|-----|------|
| 3DUDPHWHU | HU | 6\PERO | &RQGLWLRQV | 0LQ | 7\ |
| 6WDWLF | | | | | |
| &ROOHFWRU (PLWWHU %UHDNGRZQ 9ROWDJH | | 9 & \$ | | | 9 |
| *DWH 7KUHVKRQG | 9ROWDJH | P\$ | | | 9 |
| &ROOHFWRU (PLWWHU 6DWXUDWLRQ 9ROWDJH | | 9 & \$ f & f & 7 f & | | | 9 |
| =HUR *DWH 9ROWDJH &ROOHFWRU &XUUHQW | | 9 & \$ f & f & | | | P \$ |
| *DWH (PLWWHU /HDNDJH &XUUHQW | | 9 & \$ 9 *9 " 9 | | | Q \$ |

| | | | | | |
|--------------------------------------|----|-------------------|------------|-----|-----|
| 3DUDPHWHU | HU | 6\PERO | &RQGLWLRQV | 0LQ | 7\ |
| '\QDPLF | | | | | |
| ,QSXW &DSDFLWDQFH | | 9 & \$ 9 *9 9 | | | Q) |
| 5HYHUVH 7UDQVIHU &DSDFLWDQFH &UHV | | 1 0+] | | | |
| *DWH &KDUJH | * | 9 & \$ 9 * 4 9 | | | X & |
| 6KRUV &LUFXLW &RQOHFWRU &XUUHQW | | 9FF 907M f & | | | \$ |

(OHFWULFDO & KDUDFWWHULVWLFVRRWKKIDZLRGHVSHFLILH

| | | | |
|---------------------------|-----------------------|------------|-----|
| 3DUDPHWHU | 6\PERO | &RQGLWLRQV | QLQ |
| 6WDWLF | | | |
| 'LRGH)RUZDUG)9ROXW DJH & |) 7M f & 7M f & | | 9 |

6ZLWFKLQJ & KDUDFWWHULVWLF , QGXFWLYH /RDG

| | | | |
|----------------------|--------------------------------|------------|-----|
| 3DUDPHWHU | 6\PERO | &RQGLWLRQV | QLQ |
| '\QDPLF M DW 7 | | | |
| 7XUQ RQ 'HOD\ 7LPH | 9&& 9 & , \$ 9*(9a 9 5J | | QV |
| 5LVH 7LPH | | W | QV |
| 7XUQ RQ (QHUU\ (RQ | | | P- |
| 7XUQ RII 'HOD\ 7LPH | | | QV |
|)DOO 7LPH | | W | QV |
| 7XUQ RII (QHUU\ (RII | | | P- |
| '\QDPLF M DW 7 | | | |
| 7XUQ RQ 'HOD\ 7LPH | 9&& 9 & , \$ 9*(9a 9 5J | | QV |
| 5LVH 7LPH | | W | QV |
| 7XUQ RQ (QHUU\ (RQ | | | P- |
| 7XUQ RII 'HOD\ 7LPH | | | QV |
|)DOO 7LPH | | W | QV |
| 7XUQ RII (QHUU\ (RII | | | P- |
| '\QDPLF M DW 7 | | | |
| 7XUQ RQ 'HOD\ 7LPH | 9&& 9 & , \$ 9*(Ya 9 5J | | QV |
| 5LVH 7LPH | | W | QV |
| 7XUQ RQ (QHUU\ (RQ | | | P- |
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|)DOO 7LPH | | W | QV |
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(OHFWULFDO & KDUDFWHULVWLFV RI WKH ',2' (

| 3DUDPHWHU | 6\PERO | &RQGLWLRQV | OLQ |
|--|--------|------------|-----|
| '\QDPLFDW 7 | | | |
| 'LRGH)RUZDUG 9)ROW,DJH\$ | | | 9 |
| 5HYHUVH 5HFRYHU & XUUHQW | | | \$ |
| 5HYHUVH 5HFRYHU & KD'UJH \$ 9 9 GL GW | | \$ V | X & |
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| '\QDPLF DW 7M • | | | |
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| 5HYHUVH 5HFRYHU (HUJ\ | | | P- |
| '\QDPLF DW 7M • | | | |
| 5HYHUVH 5HFRYHU & XUUHQW | | | \$ |
| 5HYHUVH 5HFRYHU & KD'UJH \$ 9 9 GL GW | | \$ V | X & |
| 5HYHUVH 5HFRYHU (HUJ\ | | | P- |

7KHUPDO 5HVLVWDQFH

| 3DUDPHWHU | 6\PERO | OD[| 9DOXH | 8QLW |
|---|--------|-----|-------|------|
| , * % 7 7KHUPDO 5HVLVWDQFH -XQFWLRQ & DVH . : | | | | |
| 'LRGH 7KHUPDO 5HVLVWDQFH 5XQFWLRQ & DVH | | | | . : |
| 7KHUPDO 5HVLVWDQFH -XQFWLRQ \$ PELHQW | | | | . : |

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19V
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z Circuit Diagram

Z 3DFNDJH 2XWOLQH ,QIRUPDWLRQ

