

# **MDIA5001**

K f]h]b[ ZcfA YX]U

GYa YghYf'C bY''##'&\$%

# 7ci fgY<sup>·</sup>Cj Yfj ]Yk

GHJZZ:7cbHJWh:8YHJ]`g`

7cbj Ybcfg

## .

## 5 WUXYa]W + DZcfa Uh]cb

: cf`YggYbhJU``ghi XYbh`]bZcfa UhJcb`fY`UhJb[ 'hc.`fYei Yghg`Zcf`Yl hYbg]cb/fYj ]Yk 'cZa Uf\_g/cWW dUhJcbU``\YU`h\UbX`gUZYhm/Yl Ua ]bUhJcb`dfcWYXi fYg/gdYWJU``Wcbg]XYfUhJcb`]b`h\Y`Yj YbhcZ]``bYgg`cf`a ]gUXj Ybhi fY/

## 7ci fgY 8YHJ] g

7 fYX]hDc]bhg \*

### Gi a a UfmcZh\Y 7ci fgY

 $\pm$ 0 'fh ]g 'Wci fgY 'mci 'k ]``'VY ']blfcXi WYX 'hc '\_Yma YX]U'k f]h]b[ 'g\_]``g"'H\Y 'Wci fgY 'k ]```Wcj Yf'U'fUb[ Y'cZ[ YbfYg UbX'fc`Yg']b'h\Y'ci fbU']ga 'UbX'Wca a i b]\Wh]cb'\Z]Y`X"'\Mci 'k ]````YUfb'h\Y'\Z bXUa YbfU'g'cZ'ci fbU']gh]\WdfcgYZ fYgYUf\W.Z']bhYfj ]Yk g'UbX'bYk g'ghcfmghfi \Wf fY"

H\Y'Ya d\Ug]g`k ]``VY`cb`k f]h]b[ 'Zcf`df]bh'&i fbU`]ga 'Vi hh\Y'g\_]``g``YUfbhk ]```Zcfa 'h\Y'VUg]g`cZU'dcfhZc`]c`cZ g\_]``g`h\Uhk ]```VY`i gYZ\``UWfcgg`U```a YX]U'UbX`W&a a i b]\WJh]cbg`W&bhYl hg\''\Mci `k ]````YUfb`\ck 'hc`ghfi \Wi fY UbX`YX]h'U'bYk g`ghcfmž\ck 'hc`i gY`ei chYg`UbX`\ck 'hc`Yb[ U[ Y`fYUXYfg\''\Mci `k ]```fYUX`UbX`UbU`mgY`U'fUb[ Y cZbYk g`ghcf]Yg`UbX`k ]````YUfb`hc`fYgYUf\\ž]bhYfj ]Yk 'Zcf`UbX`k f]hY`Vch\`f\UfXf\UbX`f\jcZf`lbX`k g`ghcf]Yg\''\Mci `k ]````YUfb`hVg`JbhYfj ]Yk 'Zcf`UbX`k f]hY`Vch\`f\UfXf\UbX`f\jcZf\bYk g`ghcf]Yg\''\Mci `k ]```YUfb`UVci hh\Y'j U`i Yg`UbX`dfcXi \W]cb`\&bghfU]bhg`h\Uh[ i ]XY`h\Y`gY`Y\W]cb`cZbYk g`]hYa g\''

 $H\g``Wci\ fgY`Yb[\ U[\ Yg`k\ ]h\ `h\Y`\] ghcfmcZh\Y`bYk\ g`[\ YbfY`UbX`k\ ]h\ `h\Y`ei\ Ygh]cb.\ `k\ \Uh]g`bYk\ g3`Mci \ `k\ ]```\ `YUfb`UVci\ hVU`UbW`ž'V]Ug`UbX`Yh\]Wg''`H\]g`Wci\ fgY`k\ ]```U`gc`fYei\ ]fY`mci \ `hc`h\]b_`UVci\ h'h\Y`Yh\]WU``UbX dfcZYgg]cbU``UgdYWg`cZmci\ f`k\ cf_`UbX`]hg`gcWJU`ž'YWcbca\ ]WUbX`dc`]h]WU``fc`Y''$ 

### 5 hh Y WcbWi g]cb cZh ]g Wci fgY h Y gh XYbhk ] ` VY UV Y hc

%" D`Ub`UbX'i bXYftU\_Y't\Y'fYgYUfW\'bYYXYX'tc'k f]tY'Ub'YZZYWfj Y'bYk g'bUffUtjj Y

- &" C VHJ]b 'gci fW'gž'WcbXi Wh]bhYfj ]Yk g 'UbX'i gY ']bZcfa Uh]cb ']b 'U'dfcZYgg]cbU`'UbX'Yh\]WU`'a UbbYf
- ' " K f]hYžghfi Wh fY`UbX`YX]hU`\UfX`bYk g`ghcfmZcf`U`gdYW]ZWa YX]i a ž`Zcfa UhUbX`Ui X]YbW
- ("K f]hYžghfi Whi fY`UbX`YX]hU`gcZhbYk g`ZYUhi fY`ghcfmih\UhbUffUhjj ]gYg`Yj Ybhgžd`UWYg`UbX`W\UfUWYfg

#### HYUWX]b[ G

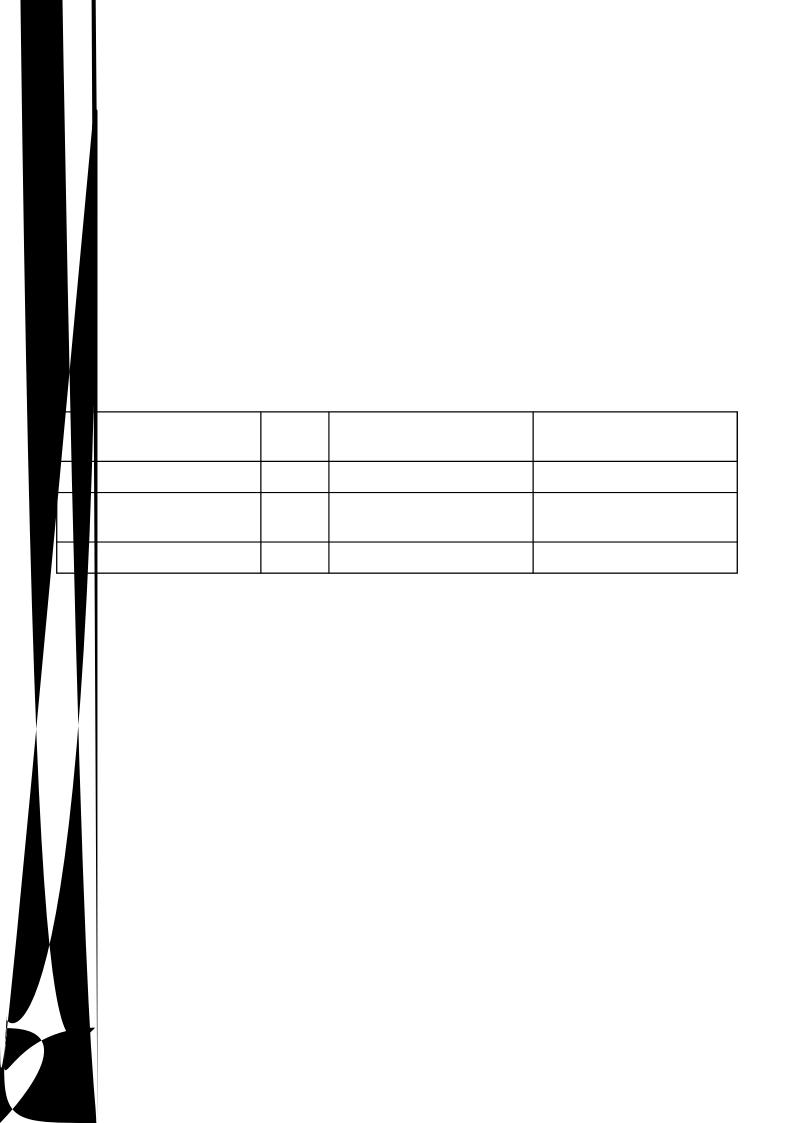
## 5ggYgga Ybh

.

.

 $\label{eq:control_state} 5ggYgga\ YbhWf]hYf]U`]b`A\ 8=&5) $$\%ZcW\ g`cb`h\Y`ei\ U`]hmcZgi\ Va\ ]gg]cbg`]b`Zci\ f`a\ U]b`UfYUg. `F9G95F7< Z' KF+H-B; Z'-B+H9FJ-9K-B; `UbX': CFA5HH-B; "$ 

 $F9G95F7 < `Wf]hYf]U`fYk UfX`U`[fUgd`cZh\Y`j U`i Yg``h\Uh[i ]XY`UbX`gci fWYg`h\UhYbUV`Y`fYgYUfW\`]b`h\Y [YbfY`fY`Yj Ubhhc`h\Y`Ugg][ba Ybh'`H\YgY`a Um']bWl XY.$ 



## Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g

 $Gh\ XYbhg\ UfY\ YI\ dYWMYX\ hc\ di\ hih\ Y]f\ bUa\ Yg\ UbX\ gh\ XYbhbi\ a\ VYfg\ cb\ Yj\ YfmdU[\ Y\ cZh\ Y]f\ Ugg][\ ba\ Ybhg\ bug\ Ybhg\ bug\ Yhhg\ Yhhg\ bug\ Yhhg\ Yhhg\ bug\ Yhhg\ bug\ Yhhg\ bug\ Yhhg\ bug\ Yhhg\ bug\ Yhhg\ Yhhg\ bug\ Yhhg\ Yhhg\ bug\ Yhhg\ Yhhg\$ 

## Hi fb]h]b Gi Va ]gg]cb

⊋mci 'YbWci bhYf'U'dfcV'Ya 'k \Yb'UhhYa dhjb[ 'hc'gi Va ]hmci f'Ugg][ ba Ybhh\fci [ \ 'Hi fb]hjbž'd'YUgY hY'Yd\cbY'9| hYfbU''Gi ddcfhcb'-' , ) '' ' '%cf'Ya U]'hXYa 'cb'<u>Yl hYfbU'hY'hgi ddcfh4 i bgk "YXi "Ui</u> ł `G][ b]Z]\WbhmUZZY\Wimci f`dYfZcfa Ub\Wf`]b`UggYggUV`Y`k cf\_ž`VY`]h'U`Zcfa U``YbX!cZgYa YghYf`Yl Ua ]bUh]cbž'U \WUgg`hYghz`U``UVcfUhcfmhYghz`U`gYa ]bUf`dfYgYbhUh]cb`cf`Ubmch\Yf`Zcfa `cZ`UggYgga Ybh'

: cf'Z fh\Yf'XYhJ]`g']b'fY`Uhjcb'hc'GdYWJU`'7 cbg]XYfUhjcb']bWj]&J|b['''K \Yb'hc%5dd`m'ž''<ck'hc'5dd`m''UbX''Gi ddcfhjb['8cW'a YbhUhjcb''d`YUgY'fYZYf'hc'h\Y'GdYWJU`'7 cbg]XYfUhjcb'k YVghJY.'\hdg.#gh'XYbh'i bgk "YXi "Ui #gdYWJU`!Wcbg]XYfUhjcb

‰

## 5 WUXYa ]W<cbYghmUbX D`U[]Uf]ga

D`U[]Uf]ga i]gii g]b[ih\Yik cfXgicfi]XYUgicZch\YfgiUbXidfYgYbh]b[ih\Ya iUgimci fick b"i\in\WbihU\_Yia Ubm Zcfa gžZfca iXYi]VYfUhYiW\YUh]b[ihciUVW]XYbhU`mWcdm]b[iZfca iUigci fWlik]h\ci hiUW\_bck iYX[Ya Ybh'i

 $I BGK `[fci dg'd`U[]Uf]ga `]bhc'h\Y'Zc``ck]b[`WUhY[cf]Yg.$ 

7 cdm]b[.'i g]b['h\Y'gUa Y'cf'j Yfmg]a ]`Uf'k cfXg'hc'h\Y'cf][]bU`h\I hcf']XYU'k ]h\ci hUW\_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf\_g"'H\]g'U'gc'Udd`]Yg'hc']a U[Ygž'Ufh'UbX'XYg][b'dfcYWhgž'Ug'k Y``'Ug dfYgYbhUh]cbg'k \YfY'gca YcbY'dfYgYbhg'Ubch\Yf'g']XYUg'cf'k cfXg'k ]h\ci h'WfYX]hY[cf]Yg.

- VYMYfa UbU[Ymcifh]a Y
- i bXYfgHUbX mci f'f][ \hg`UbX`fYgdcbg]V]`]h]Yg`Ug`U`gh XYbh'UhI BGK
  VY`Uk UfY`cZd`U[]Uf]ga žWcdmf][ \hz`I BGK 'Gh XYbh'7 cXY`cZ7 cbXi Wh'UbX`5VWWdhUV`Y`I gY`cZ IBGK '=7 H'F Ygci fWYg'Dc`]Wm

# 7ci fgY GWX YXi `Y

J Yikfawugg ha Yhuv Y

I	I	

	@W e Se [f: SbbW e, 3`;`fcaVgUf[a` fa <agd 'fx'yx]h]cbžclzcfx'l="" b]j="" sfe_="" yfg]hmdfyggž<br="">A Y'Vci fbY.</agd>	
	1.7 \"`, 'dd"'%\$)!%% ''+5hYfj]Yk]b[''f7\UdhYf'+']b @Ua V'Y'&bX'YX]h]cbŁ	
	5B8	
	7 `Umrcbž' > "`f% - ( Ł'; `fWth[W' [` Y Xad < agd S1[efež D]Uh_i g" `@cbXcb"	
	Hit: cffmE i Ygr]cbg'Ug_YX'Vm6Y[]bbYfg''dd"'% &	
	1.7 < "%'EichYg'UfY'>cifbU']ga'g'J]hU']hm'dd"'%!&%	6
	1.7 < ", "; Y" >chYhf!&c h	4
		_

	1	ł 7 < "%* '8 Y ZJa Ułjcb' dd" &&) ! &( '
		ł 7 < "%+ '7 cbh/a dh'dd" &( (!&) +
		{ `7 < "% `'C h\Yf`@Y[ U``DYf]`g <b>'</b> `dd"`&) , !&+*
		5B8
		5i glfU`]Ub`>ci fbU`]glgfi7 cXY`cZ7 cbXi Wfi \htdg.#k k k "a YUU"cf[ #a YUU!a YX]U#McXY!cZYh\]Wg#
K_YY_`+.`%*`5df]`!`&& 5df]`	GYa ]bUf	5XjUbWYX ±bhYfj]Yk]b[ :; Yhh]b[ '\][\'jU'iY eichYg'UbX']aU[Yg
		69: CF9'7@5GGF958&; . 'A Ym`Yfž?' fl% - +Ł '5d\\Sf[hW;` f\\dh[\W [` Yž' fX'9X"'5``m\ '6U\\db/ 6cg\cb.
		ł ˙7 < "' ˙'H\Y˙HYb˙GhU[Yg˙cZh\Y˙±bhYfj]Yk '"˙dd"˙%)!&'
		ł '7 < "‰''±bhYfj]Yk]b[ 'Zcf'EichYg'UbX'5bYWXchYg' dd" '%\$%1%%\$"
		5B8
		7`Umhcbž>"'f1%-(Ł';`fWah[Wi[YXad <agd [efež<br="" s="">D]Uh_ig"@cbXcb"</agd>
		ł 7 < "% ` <b>'</b> AYYh]b['mcif'=bhYfj]YkYY'dd"% (!%()
K YY_', .'&' '5df]`!'&-	GYa ]bUf	BYkg'Kf]h]b[.'Ghm`Y'UbX'≆adUWh
5df]`		69: CF9'7@5GG'F958-B; G. 'K \]hYž'G"'f&\$\$\$Ł' DWbadf[Y[ 3gefc51Sł &bX'9X]h]cb" Gci h\ MUffUž A UWA]``Ub'9Xi WUh]cb.
		'7 < "`- ''H\Y'@Ub[i U[Y'cZBYkg'Kf]h]b[''dd"  %)
		ł '7 < ž'%"''H\Y '< UfX BYk g': c``ck 'H\fci [\''dd" &\$'!&&*"
		7 cb`Ymž'8"'f&\$\$&Ł'FZW6S[1k? [dSUW]3`;`fdaVgUf[a` fa <agd s1[e_ž'&bx'yx]h]cb"'clzcfx<br="">  b]jYfg]hmDfYgg"'Gcih\'AY`VcifbY.</agd>
		ł '7 < "') '''H\Y'@YUX.'K ]``'h\Y'F YUXYf': c``ck 3''dd" +(!, -
		ł '7 < "'+'''(1 dg]XY '8 ck b 'DmfUa ]Xg' 'dd" '%%' !\%)
I	1	I

		GhcjU``ž; "'f&\$\$) E <agd <br="" s1[e_="" zal ="" zsfl ="" zwdw=""  ="">  ZWl  ZkS`V:ai"'DYUfgcb/6cghcb.</agd>
		ł7<""%\$"'K f]h]b["BYkg"UbX":YUhifYg'"dd""%*+!"%\$
K YY_'" \$"5df]"!"*"A Um	GYa ]bUf	·
1		

		5B8
		D\]``]dgž; 'UbX'@]bX[fYbž'A'&\$\$)ž'f#\Y'FUX]c'BYkg FYdcffYfžfi]b'3gefc&fS` 4caSVUSef <agd sfe_ž&bx<br="">YX]h]cb"'C ZcfX' b]jYfg]hmDfYggž'AY'VcifbY.'')(!*' fgYY'AccX'Y'KYY_'%%Zc'XYfŁ</agd>
K YY_'%&.'&%'A Um'!'&+ A Um	GYa ]bUf	
A OIII		K f]h]b[ 'Zcf'A YX]U. 'C b`]bYžA i `h]a YX]UZGcW]U` A YX]U
		69: CF9'7@5GG'F958-B; .''@Ua V'Yž'G'&\$%*ž' @W'e Se [f: SbbW'e, 3`;`fdaVgUf[a`fa <agd`s'[e_'fx'yx]h]cbž'c zcfx' b]jyfg]hm'dfyggž AY'VcifbY.</agd`s'[e_'fx'yx]h]cbž'c zcfx' b]jyfg]hm'dfyggž 
		'7 < "''%''K f]h]b[ 'BYkg'Zcf'Cb']bY'UbX'DcfhUV'Y   8Yj ]WYg''dd"'%( , !%*&'
K YY_'% .'&, 'A Um!'' >i bY	GYa ]bUf	łł5GG≑ BA 9BH" 'f(\$i Ł'GI 6A €G€BG'7@CG9 : F=%'>I B9'5H') 'DA 'łł
		K f]h]b[ 'Zcf'A YX]U. '9X]h]b[ '/ 'Di V`]WUh]cb DUh\k Umg
		; I 9GH @97HI F 9F fH65Ł

## FYgci fWyg

#### DfYgWf]VYX F Ygci fWYg

• H9LH6CC? '- @Ua V'Yž'G"'@W e Se [f: SbbW e, S`; fcaVgUf[a` fa <agd Sfe\_ f&\$%\* k

#### FYWca a YbXYX FYgci fW/g

- 6cc\_'-GhYd\YbgžA"'3: [efack aX@W'e'f\%,, Ł
- 6cc\_'-'GYXcf\_]bž'; "'; fWth[W ['Y, 3 9g[VW8ad<agd S/fefe S'V | dfWte'f&\$\$&L
- 6cc\_-D\]`]dgž; "/ @ bX[fYbžA "3gefcS'[S` 4caSVUSef <agd S'[e\_ f&\$% Ł
- $6cc_-6U$ bVf]X[Yž>"? WW[SS`V <agd Sfe\_, @W 3bbdaSUZWe fa FZWack S`V BdSUf[UWf&\$%&

#### 7 ci fgY 9j U`i Uhcb UbX 8Yj Y`cda Ybh

H\Y`ghi XYbh`YUfb]b[ `Yl dYf]YbWY`]g`]a dcfhUbhihc`h\Y`: UWi`hm`UbX`h\Y`ghUZZ]b`h\]g`Wci fgY"`H\fci [\ci hh\Y Xi fUh]cb`cZh\Y`Wci fgYžghi XYbhg`UfY`YbWci fU[YX`hc`dfcj]XY`Y]h\Yf`Zcfa U``UbX#cf`]b\Zcfa U``ZYYXVUW\_"5hh\Y WcbWi g]cb`cZh\Y`gYa YghYf`U`Zcfa U``ghi XYbhYj U`i Uh]cb`]g`dfcj]XYX`hc`YbUV`Y`ZYYXVUW\_cb`h\Y`Wci fgY WcbhYbhUbX`hYUW\]b[ `ghUZZ'

#### =a U[ Y'7 fYX]h

 $D \cdot chc \cdot VmF c[Yf' < "'; cib'j] U \cdot 7 f Y Uhj Y \cdot 7 ca a cbg ``] W bg Y \cdot cb': ``] \underline{W} f$ 

#### 7F = 7CG

7 F = 7 C G 'Dfcj ]XYf'7 cXY. '\$\$\$-,;