User Manual

SpeedFace-V3L

Date: July 2023

Doc Version: 1.3

English

Zqj wt ±x" ox| lqxx~rwp x"| y|xm"l'1 Vunj~n |nj m 'qn rw~|"l'rxw~ lj|no" ut± knox|n xyn|j'rxwl Kxuux" 'qn~n rw~|"l'rxw~'x nw~"|n 'qj' 'qn y|xm"l' r~o" wl 'rxwrwp y|xyn|u±1Zqn rv j pn~~qx" wrw'qr~v j w" j uj |n ox| ru" ~|j'r–n y"|yx~n~xwu±1

Kx| o"|'qn| mn'j ru+/ yunj~n –r~+' x"| Hxv yj w±*~ " nk~+'n " " " †t'nl x1xv 1

Hxy±|rpq' 5356 cPZJ HU HU1/RZI 1F uu|rpq'~|n~n|–nm1

_ r'qx"' 'qn y|rx| " |r'nw l xw~nw' xo cPZnl x/ wx yx|'rxw xo'qr~ v j w" j u l j w kn l xy rnmx| ox|" j |mnmrw j w±" j ±x| ox|v 1F uuyj |'~xo'qr~v j w" j uknux wp 'x cPZnl x j wmr' ~~" k~rmj |rn~+qn|nrwj o'n| 'qn %Hxv yj w±%x| %cPZnl x%1

Z|j mnv j |t

ZKTECO r~j |npr~'n|nm'|j mnv j |t xo cPZnl x1U'qn| '|j mnv j |t ~rw–xu+nmrw'qr~ v j w" j uj |n x" wnmk±'qnr| |n~ynl 'r–n x" wn|~1

I r~l uj rv n|

Zqr~v j w" j ul xw'j rw~rwox|v j 'rxwxw'qn xyn|j 'rxwj wmv j rw'nwj wl n xo'qn cPZnl x nz" ryv nw'1Zqn l xy±|rpq' rw j uu'qn mxl " v nw'~/ m|j " rwp~/ n'l 1rw |nuj 'rxw 'x 'qn cPZnl x ~" yyurnm nz" ryv nw' –n~'~ rw j wm r~'qn y|xyn|'± xo cPZnl x1Zqn l xw'nw'~ qn|nxo~qx" umwx' kn " ~nmx| ~qj |nmk±'qn |nl nr–n| " r'q j w±'qr|myj |'±" r'qx"' n–y|n~~" |r'nwyn|v r~~rxwxo cPZnl x1

Zqn l xw'nw'~ xo'qr~ v j w" j u v " ~' kn |nj m knox|n ~'j |'rwp 'qn xyn|j 'rxw j wm v j rw'nwj wl n xo'qn ~" yyurnm nz" ryv nw'1Nb j w± xo'qn l xw'nw'+~, xo'qn v j w" j u ~nnv ~" wl unj | x| rwl xv yun'n/yunj ~n l xw'j l' cPZnl x knox|n ~'j |'rwp 'qn xyn|j 'rxw j wm j w± rwox|v j 'rxw l xw'j rwnm rw'qr~ v j w" j ux| j w± xo'qn j v nwmv nw'~ v j mn 'qn|n'x1 cPZnl x mxn~ wx' n–'nwm'qn " j ||j w'± xo j w± t rwm/ rwl u" mwp/ " r'qx"' uv r'j 'rxw/ j w± " j ||j w'± xo mn~rpw/ v n|l qj w'j kru'±/ x| o'wn~~ ox| j yj |'rl " uj | y" |yx~n1 cPZnl x mxn~ wx' j ~~" v n |n~yxw~rkru'± ox| j w± n||x|~x| xv r~~rxw~rw'qn rwox|v j 'rxw x| mxl " v nw'~" qrl q j |n |non|nwl nmk±x| uwt nm'x 'qr~ v j w" j u1Zqn nw'r|n |r~t j ~'x 'qn |n~" u'~j wmyn|ox|v j wl n xk'j rwnmo|xv " ~rwp 'qn rwox|v j 'rxw r~ j ~~" v nmk±'qn " ~n|1

cPZnl x rw wx n–nw' ~qj uukn uj kun 'x 'qn " ~n| x| j w±'qr|myj |'± ox| j w± rwl rmnw'j u/ l xw~nz" nw'rj u/ rwm|nl '/ ~ynl rj u/ x| n–nv yuj |± mj v j pn~/ rwl u" mwp/ " r'qx"' uv r'j 'rxw/ ux~~ xo k" ~rwn~~/ ux~~ xo y|xo'~/ k" ~rwn~~ rw'n||" y'rxw/ ux~~ xo k" ~rwn~~ rwox|v j 'rxw x| j w± ynl " wrj |± ux~~/ j |r~rwp x"' xo/rw l xwwnl 'rxw" r'q/x| |nuj 'rwp 'x 'qn " ~n xo'qn rwox|v j 'rxw l xw'j rwnm rw x| |non|nwl nm k± 'qr~ v j w" j u/ n–nw ro cPZnl x qj ~knnwj m-r~nmxo'qn yx~~rkru'±xo~" l q mj v j pn~1

Zqr~ v j w" j uj wm 'qn rwox|v j 'rx w l xw j rwnm 'qn|nrw v j ± rwl u" mn 'nl qwrl j u/ x 'qn| rwj l l " |j l m~ x| '±yxp|j yqrl j un||x|~1 cPZnl x yn|rxmrl j uu± l qj wpn~ 'qn rwox|v j 'rx w qn|nrw" qrl q " ruukn rwl x|yx|j 'nmrw l x wn" j mm" rx w~2j v nwmv nw l ~ 'x 'qn v j w" j ul cPZnl x |n~n|–n~ 'qn |rpq' 'x j mm/ mnun 'n/ j v nwm/ x| v xmro± 'qn rwox|v j 'rx w l xw j rwnm rw 'qn v j w" j uq xv 'rv n 'x 'rv n rw 'qn ox|v xol r|l " uj |~/ un'' n|~/ wx 'n~/ n'l 1 ox| kn'' n| xyn|j 'rx w j wm ~j on'± xo 'qn v j l qrwn2" w" 2nz " ryv nw l 1 Zqn ~j rm j mm" rx w~ x| j v nwmv nw l ~ j |n v nj w l ox| rv y|x–nv nw l 2kn'' n| xyn|j 'rx w~ xo 'qn v j l qrwn2" w" 2nz " ryv nw l j wm ~" l q j v nwmv nw l ~ ~qj uuwx' pr–n j w± |rpq' 'x l uj rv j w± l xv ynw~j 'rx wx| rnj v j pn~" wrm| j w± l r|l " v ~j wl n~1

cPZnl x ~qj uu rw wx " j ± kn |n~yx w~rkun +r, rw l j ~n 'qn v j l qrwn2" w" 2nz " ryv nw l v j uo" wl 'rx w~ m" n 'x j w± wx w0 l xv yuj wl n xo 'qn rw~j |" l 'rx w~ l xw j rwnm rw 'qr~ v j w" j u+rr, rw l j ~n xo xyn|j 'rx w xo 'qn v j l qrwn2" w" 2nz " ryv nw l kn±xwm 'qn |j 'n uv r' ~ +rr, rw l j ~n xo xyn|j 'rx w xo 'qn v j l qrwn j wm nz " ryv nw l rw l x wm" rx w~ rnoon|nw l q xv 'qn y|n~l |rknml x wm" rx w~xo 'qn v j w" j ul

Zqn y|xm" l ' " ruukn " ymj 'nm q xv 'rv n 'x 'rv n " r" qx" ' y|rx| wx 'rl n1 Zqn uj 'n~ xyn|j 'rx w y|xl nm" |n~ j wm |nun–j w l rnxl " v nw l ~ j |n j –j nuj kun xw q''y>22" " " f't'nl x1 xv

Nv 'qn|nr~j w±r~~" n|nuj 'nm 'x 'qn y|xm" l '/ yunj ~n l x w j l ' " ~1

cPZnl x Mnj nz " j |'n|~

Fmm|n~~ cPZnl x Nwm" ~'|rj uVj |t/ Tx165/ Nwm" ~'|rj uXxj m/

Zj wp–rj Zx" w/ l xwpp" j w/ Hqrwj 1

Vqxwn .;9:9<0;543<<<4

Kj — .;9:880;<9356<7

Kx| k" ~rwn~~Q nuj 'nmz " n|m~/ yunj ~n " |r' n 'x " ~j ' ~j un~E°t'nl x1 xv 1

Zx t wx" v x|n j kx" ' x" | pux kj uk|j wl qn~/ –r~r' " " " f't'nl x1 xv 1

F k x“ ' ' qn H x v y j w±

c P Z n l x r~ x w n x o ' q n ” x | u m*~ u j | p n~' v j w“ g l ' “ | n | x o X K N l j w m G r x v n ' | r l +K r w p n | y | r w ' / K j l r j u / K r w p n | 0 - n r w , | n j m n | ~ 1 V | x m“ l ' x o o n | r w p ~ r w l u“ m n F l l n ~ ~ H x w ' | x u | n j m n | ~ j w m y j w n u + / T n j |) K j | 0 | j w p n K j l r j u X n l x p w r ' r x w H j v n | j ~ / J u n - j ' x | 2 o u x x | j l l n ~ ~ l x w ' | x u u n | ~ / Z“ | w ~' r u n ~ / R r l n w ~ n V u j ' n X n l x p w r ' r x w + R V X , p j ' n l x w ' | x u u n | ~ j w m H x w ~“ v n | y | x m“ l ' ~ r w l u“ m r w p k j ' ' n | ± 0 x y n | j ' n m o r w p n | y | r w ' j w m g j l n 0 | n j m n | l x x | R x l t ~ 1 U “ | ~ n l “ | r ' ± ~ x u“ ' r x w ~ j | n v “ u ' r 0 u r w p “ j u j w m u x l j u ° n m r w x - n | 4 ; m r o o n | n w ' u j w p “ j p n ~ 1 F ' ' q n c P Z n l x ~' j ' n 0 x o 0 ' q n 0 j | ' : 33/333 ~ z “ j | n o x x ' N Y U < 3340 l n | ' r o r n m v j w“ g j l ' “ | r w p g j l r u r ' ± / ” n l x w ' | x u v j w“ g j l ' “ | r w p / y | x m“ l ' m n ~ r p w / l x v y x w n w ' j ~ ~ n v k u ± / j w m u x p r ~' r l ~ 2 ~ q r y y r w p / j u u “ w m n | x w n | x x o 1

Z q n o x “ w m n | ~ x o c P Z n l x q j - n k n n w m n ' n | v r w n m o x | r w m n y n w m n w ' | n ~ n j | l q j w m m n - n u x y v n w ' x o k r x v n ' | r l - n | r o r l j ' r x w y | x l n m“ | n ~ j w m ' q n y | x m“ l ' r ° j ' r x w x o k r x v n ' | r l - n | r o r l j ' r x w Y I P / ” q r l q ” j ~ r w r ' r j u u ± ” r m n u ± j y y u n m r w V H ~ n l “ | r ' ± j w m r m n w ' r ' ± j “ ' q n w ' r l j ' r x w o r n u m ~ 1 _ r ' q ' q n l x w ' r w “ x “ ~ n w q j w l n v n w ' x o ' q n m n - n u x y v n w ' j w m y u n w ' ± x o v j | t n ' j y y u r l j ' r x w ~ / ' q n ' n j v q j ~ p | j m“ j u u ± l x w ~' | “ l ' n m j w r m n w ' r ' ± j “ ' q n w ' r l j ' r x w n l x ~ ± ~' n v j w m ~ v j | ' ~ n l “ | r ' ± n l x ~ ± ~' n v / ” q r l q j | n k j ~ n m x w k r x v n ' | r l - n | r o r l j ' r x w ' n l q w r z “ n ~ 1 _ r ' q ± n j | ~ x o n - y - n | r n w l n r w ' q n r w m“ ~' | r j u ° j ' r x w x o k r x v n ' | r l - n | r o r l j ' r x w ~ / c P Z n l x ” j ~ x o o r l r j u u ± n ~' j k u r ~ q n m r w 533: j w m w x ” q j ~ k n n w x w n x o ' q n p u x k j u u ± u n j m r w p n w ' n | y | r ~ n ~ r w ' q n k r x v n ' | r l - n | r o r l j ' r x w r w m“ ~' | ± x ” w r w p - j | r x “ ~ y j ' n w ' ~ j w m k n r w p ~ n u n l ' n m j ~ ' q n T j ' r x w j u M r p q 0 n l q J w ' n | y | r ~ n o x | 9 l x w ~ n l “ ' r - n ± n j | ~ 1 N ' ~ y | x m“ l ' ~ j | n y | x ' n l ' n m k ± r w ' n u n l ' “ j u y | x y n | ' ± | r p q ' ~ 1

F k x“ ' ' qn S j w“ j u

Z q r ~ v j w“ j u r w ' | x m“ l n ~ ' q n x y n | j ' r x w ~ x o] **≤ r r q O n p r 2 c 8 U** 1

F u u o r p “ | n ~ m r ~ y u j ± n m j | n o x | r u u“ ~' | j ' r x w y “ | y x ~ n ~ x w u ± 1 K r p “ | n ~ r w ' q r ~ v j w“ j u v j ± w x ' k n n - j - l ' u ± l x w ~ r ~' n w ' ” r ' q ' q n j l ' “ j u y | x m“ l ' ~ 1

K n j ' “ | n ~ j w m y j | j v n ' n | ~ ” r ' q ★ j | n w x ' j - j r u j k u n r w j u u m n - r l n ~ 1

I x l " v nw' Hxw–nw' rxw~

Hxw–nw' rxw~" ~nmrw' qr~v j w" j uj |n ur~' nmk nux" >

L [NHxw–nw' rxw~

O...] ..s n r	
L..~ r ~ v..~	**Mr p v≤ v..~**
K..yq s..~	[~nm' x rmnw' ro± ~xd" j |n rw' n|g l n wj v n~ n1p1/ **XT**/ **L..~sv z** / **Ln~pr y1**
F	S " u'r0un–nu v nw" ~ j |n ~nyj |j' nm k± 'qn~n k|j l t n'~1 Kx| n–j–v yun/Krun C H|nj' n C Kxumn|1
O... Mr vpr	
L..~ r ~ v..~	**Mr p v≤ v..~**
DF	G" ''xwx| t n±wj v n~ox| mn–rl n~1Kx| n–j–v yun/y|n~~AUPC1
hj	_ rwmx" wj v n~/ v nw" r' nv ~/ mj' j 'j kun/ j wm omum wj v n~ j |n rw~rmn ~z" j |n k|j l t n'~1 Kx| n–j–v yun/ yxy " y 'qn dT n" [~n|f " rwmx" 1
4	S " u'r0un–nu v nw" ~ j |n ~nyj |j' nm k± ox|" j |mwp ~uj ~qn~1 Kx| n–j–v yun/dKrun2H|nj' n2Kxumn|f1

Y±v kxu~

L..~ r ~ v..~	Mr p v≤ v..~
	Zqr~|ny|n~nw' ~j wx' n' qj ' wnnm~' x yj ±v x|n j ''nw' rxw' x1
	Zqn pnwn|j u rwox|v j ' rxw " qrl q qnuy~ rw yn|ox|v rwp 'qn xyn|j ' rxw~g ~' n|1
	Zqn rwox|v j ' rxw" qrl q r~~rpwrorl j w' 1
	Hj |n ' j t nw' x j –xrmmj wpn| x| v r~' j t n~1
	Zqn ~' j ' nv nw' x| n–nw' 'qj ' " j |w~xo~xv n' qrwp x| 'qj ' ~n|–n~ j ~j l j " ' rxwj |±n–j–v yun1

t b

6]lONaf VNl]b[N] ..... @

7NUNLa[RLIU]lONaf ..... A

8XYN[laRKW]lONaf 65

9RW]a[bLaRKWOX[b]N 67

4.1 ORWPN[YX]RaRKWRWP 67

4.2]alWWRWP YX]RaRKW1Q LRUNeY[N]RKWIWW]alWWRWP YX]ab[N 68

4.3 [NPR]a[laRKWXOQLNaNVYUaN 69

4.4]alWWKf RWaN[QLN 6:

4.5 cR]abIUTNfKXI[M ..... 6@

4.6 cN[RORLaRKWVXMN 6A

7914 KNTLJXVXNTZ]JXNKNHFZNUT ..... 4<

7915 KFHNFR]JXNKNHFZNUT 55

7916 HFXl]JXNKNHFZNUT 57

7917 VFYY_UXl]JXNKNHFZNUT 5:

7918 HUSGNTJl]JXNKNHFZNUT ..... 5<

: XcN[cRNd 86

5.1 lYYNl[lWLN 86

5.2 LXWWNLaRKWLlKUN[lWWd R]RWP MN]L[RYaRKW 86

8514 HUTTJHZNUT HFGRJY 64

8515 _NXNTLlJYHXNYZNUT 67

<RW]alUUlaRKW ..... 8@

6.1 RW]alUUlaRKWNWcR]XWVNWa ..... 8@

6.2 MNcRLNRW]alUUlaRKW ..... 8@

>VlRWVNWb 8A

@b]N[VlWlPNVNWa 96

8.1 b]N[[NPR]a[laRKW 96

;1414 XJLNYZJXF[YJXNlFTlTFSJ 74

;1415 [YJXXURJ 75

;1416 XJLNYZJXKNTLJXVXNTZ 76

; 1417 KFHJ 76
; 1418 HFXI 77
; 1419 VFYY_ UXI 78
; 141: FHHJYY HUTZXUR XURJ 79
8.2] N [LQ b] N[..... 9>
8.3 NMRa b] N[..... 9@
8.4 MNUNaN b] N[..... 9A
8.5 MR, YUI f] af UN ..... : 5
A b] N[[X UN ..... : 7
65 LXV V b WRLI aRKW] NaaRWP] ..... : :
10.1 WNad X[T] NaaRWP] ..... : :
10.2] N[R U LXV V ..... : >
10.3 YL LXWWNLaRKW ..... : @
10.4 d R2OR] NaaRWP] ..... : A
10.5 LUXbM] N[cN[ ] NaaRWP ..... <8
10.6 d RNPI WM] NabY ..... <9
431914 _ NLFTI NTV[Z 97
431915 _ NLFTI U[ZV[Z 9;
10.7 WNad X[T MR PWX] R ..... <A
66] f] aNV] NaaRWP] ..... >5
11.1 MI aNI WMaRV N ..... >6
11.2 I LLN]] UXP]] NaaRWP ..... >8
11.3 O LNYI [I V NaN[ ] ..... >:
11.4 ORWP N[Y[RWa ..... >A
11.5 O LaX[f [N] Na ..... @6
11.6] NLb[Raf] NaaRWP] ..... @7
67 YN[ ] XWI URgN] NaaRWP] ..... @9
12.1 RWaN[OI LN] NaaRWP] ..... @9
12.2 c XRLN] NaaRWP] ..... @<
12.3 KNUU] LQNMbUN] ..... @>
12.4 YbWLQ] aI aN] X YaRKW] ..... @A

12.5]QX[aLba TNf VIYYRMP] A6
68 MIal VIWI PNVNMa ..... A:
13.1 MNUNaNMIal ..... A:
69 ILLN]]LXWa[XU ..... A>
14.1 ILLN]]LXWa[XUXYaRKW ..... A@
14.2 aRVN]LQNMbUN 656
14.3 QXURMf] 658
14.4 LXVKRWNMcN[RORLIaRKW 659
14.5 IWaR2YI]]KILT]NabY ..... 65<
14.6 Mb[N]]XYaRKW]NaaRMP] ..... 65@
6:b]KVIWIPN[..... 665
15.1 MXdWUXIM 665
15.2 bYUXIM 666
6<IaaNWMIWLN]NI[LQ 667
6>IbaXaN]a 669
6@]f]aNVRMOX[VIaRKW ..... 66<
6ALXWWNLaaXgTKRKILLN]]Rt]]XOadI[N ..... 66>
19.1]NaaQNLXVVbWRLIaRKWIMM[N] ..... 66>
19.2 IMMIMNcRLNXWaQN]XOadI[N ..... 66@
19.3 IMMIYN[]XWWNUXWaQN]XOadI[N 66A
IYYNWMRe6 675
[NZbR[NVNWa] XO URcN LXUUNLaRKW IWM [NPRa[IaRKW XO cR[RKUN URPQa OLN aNVYUaN] 675
[NZbR[NVNWa] OX[cR[RKUN URPQa MRPRaIUOLNaNVYUaNMIal 676
IYYNWMRe7 678
Y[RtILfYXURLf 678
NLX2O[RNWMUfXYN[IaRKW ..... 67>

E s m

Zqn knux" rw~J|"l'rxw~ rwlnwm'x nw~"|n 'qj' 'qn "~n| ljw"~n 'qn y|xm"l' lx||nl'u± 'x j–xmmjwpn| x| y|xyn|'± ux~~1Zqn oxux" rwp y|nlj"'rxw~j|n 'x tnny "~n|~ ~jon jwm y|n–nwl jw± mjvjpn1 Vunj~n |njmlj|no"u± knox|n rw~Jujurxwl

⚠ Txwlxv yujwln "r'q rw~J|"l'rxw~ lx"umunjm'x y|xm"l' mjvjpn x| yq±~rljurws"|±+vj±n–nwlj"~nmj'q,1

63 [rnq1s..yy.. 1n~q r nv~ v~ pv.~ 0 Fuu~jon'± jwm xyn|j'rxwju rw~J|"l'rxw~v"~ kn y|xyn|u± |njmjwmoxux" nmknox|nk|rwprwp 'qn mn–rlnrwlx~n|–rln1

73 M..~...vt~...r n~v~t 0Fmqn|n'xjuu" j|wrwp~xw'qn "wr' jwmrw'qn xyn|j'rwprw~J|"l'rxw~1

83 lppr ...vr 0[~n xwu± vjw"gl'"|n|0qnlxv vnwmmmx| y|xm"l'0~xum jlln~~x|m~1 Vunj~n mx wx' "~n jw± x'qn| lxv yxwnwl~x'qn| 'qjw vjw"gl'"|n|~"ppn~Jnmvj'n|rju~1

93 Yrpn v..~ s... ur v~ nyyn v..~ lx wx' yujln 'qr~ mn–rln xwjw "w~jkun~jwmx| djjvn1N vj±gjuujwmlj"~n ~n|rx"~rws"|±'x yn|~xw~ jwmmjvjpn'x'qnmn–rln1

:3]r vpr 0lx wx' '|±'x ~n|–rln 'qr~"wr' ±x"|~nuolUynwrwp x| |nvx–rwp lx–n|~vj±n–y~x~n±x"'x qj°j|mx"~–xujpn~x|x'qn| qj°j|m~1

<3 Mnz nt r r vv~t r vpr 0lr~lxwwnl''qn~±~Jnv djxv 'qnSjrw~FHx| lHyx"n| ~x"|lnjwm |non| ~n|–rln yn|~xwwnu"wmm| 'qn oxux" rwp lxwm'rxw~>

- _qnwlx|mx|lxwwnl'rxwlxw|xur~joonl'nm1
- _qnw'qnuz"rm~yruunm/x|jwr'nv mjxyynmrwlx'qn~±~Jnv 1
- Nvn–y~x~nm'x "j'n| x| m"n'x rwlunv nwl "nj'qn| +|jrw/~wx"/jwm

v x|n,1

- No 'qn ~±~'nv r~ wx' xyn|j'rwp wx|v j u±/ "wmn| xyn|j'rwp rw~'|"l'rxw~1

O"~' lqj wpn lxw'|xu~ mnownm rw xyn|j'rwp rw~'|"l'rxw~1 Nr y|xyn| j ms"~'v nw' xo'qn lxw'|xu~v j ±|n~"u' rwmj v j pn j wmrw-xu-n j z"j uomm 'nl qwrl rj w'x |n'"|w'qn mn-rl n'x wx|v j uxyn|j'rxw1

F wm mx wx' lxwwnl' v "u'ryun mn-rl n~'x xwn yx" n| j mj y'n| j ~j mj y'n| x-n|uxj ml j wl j "~n x-n|0qnj' x| or|n qj °j |m1

>3 **[r ≤ynpr z r ~ ≤n** 0 _ qnw |nyuj l nv nw' yj |'~ j |n wnnmnm/ ~n|-rl n 'nl qwrl rj w~ v "~' xwu± "~n |nyuj l nv nw' yj |'~ y|x-mmm k± 'qn ~"yyun|1 [wj "'qx|r°nm~"k~'r'"'n~l j w|n~"u' rwj k"|w/~qxl t/x| x'qn| qj °j |m~1

@3 **] nsr pur px** 0 U w l xv yun'rxw xo~n|-rl n x| |nyj r| " x|t xw'qn "wr'/j ~t 'qn ~n|-rl n 'nl qwrl rj w 'x yn|ox|v ~j on'± l qnl t~ 'x nw~"|n y|xyn| xyn|j'rxwxo'qn mn-rl n1

A3 **Y... r ... pr** 0 U yn|j'n 'qn ~±~'nv xwu± o|xv 'qn uj k nu~ yx" n| ~x"|l n ox|v 1No'qn ~x|' xoyx" n| ~"yyu±'x "~n r~"wl unj |/l j uu±x"| mnj un|1

653 **Uvt u ~v~t** 0 Hj w rw~'j uun-'-n|wj uurpq'wrwp l xwm"l'x|~'x y|x'nl' j pj rw~' nunl'|rl j u~'x|v ~1N~'xy~yx" n|0"y~o|xv mn~'|x±rwp'qn ~±~'nv 1

Xnl xv v nwmnmrw~'j uurwp'qn mn-rl n~rwj |nj ~" r'q uv r'nmj l l n~~1

F d s

- Gnox|n l xwwnl'rwp j w n-'-n|wj ul j k un'x 'qn mn-rl n/l xv yun'n p|x"wmrwp y|xyn|u±/j wm ~n' "y ~"|pn y|x'nl'rxw@x'qn|" r~n/ ~'j'rl nunl'|rl r'± " ruu mj v j pn'qn v j rwkxj |m1
- S j t n ~"|n'qj' 'qn yx" n| qj ~k nnw mr~l xwwnl'nmk nox|n ±x" " r|n/rw~'j uu/ x| mr~v j w'un'qn mn-rl n1
- J w~"|n'qj' 'qn ~rpwj ul xwwnl'nm'x 'qn mn-rl n r~j " nj t0l "||nw' +~" r'l q,

~rpwj u@x'qn|" r~n/l x v y x wnw' ~x o'qn mn–rl n " ruupn' mj v j pnm1

- J w~"|n 'qj ' 'qn ~'j wmj |m–x u'j pn j y yurl j k un rw ±x" | l x" w' |± x| |nprx w r~ j y yurnm1 No ±x" j |n wx' ~"|n j k x" ' 'qn nwmx|~nm~'j wmj |m–x u'j pn/ y unj ~n l x w~" u' ±x" | ux l j ununl '|rl y x" n| l x v y j w±1 Vx" n| v r~v j 'l q v j ± l j "~n j ~qx|' l r|l " r' x| mn–rl n mj v j pn1
- Nw'qn l j ~n x o y x" n| ~" y y u± mj v j pn/|n' "|w'qn mn–rl n 'x 'qn y|x on~~rx wj u 'nl qwrl j uy n|~x w wnux| ±x" | mnj un| ox| qj wmurwp1
- Zx j –x rm rw' n|on|nwl n/ t nny 'qn mn–rl n oj | o|x v qrpq nunl '|x v j pwn'rl |j mj 'rx w mn–rl n~/ ~" l q j ~ pnwn|j 'x|~ +rwl u' mrwp nunl '|rl pnwn|j 'x|~,/ |j mx ~/'nun–r~rx w~/+n~y nl rj uu± HXZ, v x wr' x|~/x| ~y nj t n|~1

H O S

- No ~v x t n/x mx" |/x| wx r~n |r~n o|x v 'qn mn–rl n/' "|w x oo'qn y x" n| j ' x wl n j wm" wy u' p 'qn y x" n| l j k un/j wm'qn wy unj ~n l x w' j l ' 'qn ~n|–rl n l nw' |n1
- Z|j w~y x|'j 'rx w j wm x'qn| " wy|nmrl 'j k un l j "~n~ v j ± mj v j pn 'qn mn–rl n qj |m" j |n1 Hqnl t " qn'qn| 'qn mn–rl n qj ~ j w± rw' nw~n mj v j pn k nox|n rw~'j uuj 'rx w1
- No'qn mn–rl n qj ~v j sx| mnonl '~'qj ' ±x" l j wwx' ~x u+n/l x w' j l ' ±x" | mnj un| j ~~x x wj ~y x~~rk un1
- I "~'/v x r~'" |n/j wm j k|" y' 'nv y n|j '" |n l qj wpn~ l j w j oonl ' 'qn mn–rl n ~ ~n|–rl n uron1bx" j |n j m+r~nm wx' 'x t nny 'qn mn–rl n " wmn| ~" l q l x wm' rx w~1
- I x wx' t nny 'qn mn–rl n rw j yuj l n 'qj ' –rk|j 'n~1 Mj wmun 'qn mn–rl n " r' q l j |n1 I x wx' yuj l n qnj –± x k snl '~x w'x y x o'qn mn–rl n1
- I x wx' j y y u± |x~rw/ j u l x qx u/ k nw° nwn/ y n~'rl rmn~/ j wm x'qn| –x uj 'run ~" k~'j wl n~ 'qj ' v j ± mj v j pn 'qn mn–rl n nwl ux~" |n1 Hunj w 'qn mn–rl n j l l n~~x|m~" r' q j y rnl n x o~x o' l ux'q x| j ~v j uuj v x" w' x o l unj wrwp j pnw' 1
- No ±x" qj –n j w± 'nl qwrl j uz " n~'rx w~|npj |mrwp " ~j pn/l x w' j l ' l n|'rom m x|

n–y n|rnwl nm' nl qwrl j uy n|~x wwnu1

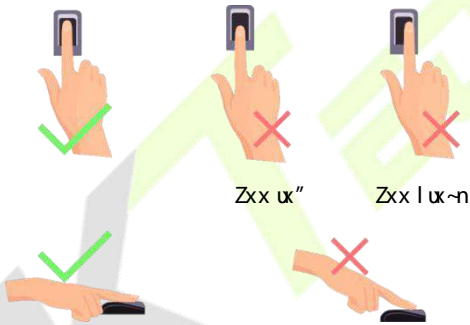
- S j t n ~"|n " qn'qn| 'qn yx~r'r–n yxuj|r'± j wm wnpj 'r–n yxuj|r'± x o'qn I H 45] yx" n| ~"yyu± r~ l x wwnl 'nm l x||nl 'u±1 F |n–n|~n l x wwnl 'rx w v j ± mj v j pn 'qn mn–rl n1 N r~ wx' j m–r~j kun 'x l x wwnl ' 'qn F H 57] yx" n| ~"yyu±'x 'qn I H 45] rwy"' yx|'1
- S j t n ~"|n 'x l x wwnl ' 'qn " r|n~ oxuux" rwp 'qn yx~r'r–n yxuj|r'± j wm wnpj 'r–n yxuj|r'±~qx" wx w'qn mn–rl n ~wj v nyuj 'n1
- Zqn " j ||j w'± ~n|–rl n mx n~ wx' l x–n| j l l rmnw' j umj v j pn/ mj v j pn l j "~nm k± v r~0xy n|j 'rx w/ j wm mj v j pn m" n 'x rwmny nwmnw' rw~'j uuj 'rx w x| |nyj r| xo'qn y|x m" l ' k±'qn "~n|1

I h u

Gnox|n pn''rwp rw'x 'qn mn–rl n onj '"|n~j wmo" wl 'rxw~/r' r~|nl xv v nwmnm'x kn oj v ruj | " r'q 'qn k nux" o" wmj v nw'j u~1

4.1 e p

[r p..z z r ~qr q sv~t r BNwmn–/–v rmmun/x| |rwp orwpn|~@j –x rm" ~rwp 'qn 'q" v k x| yrwt±/j ~'qn±j |n mroorl "ú 'x j l l "|j 'nu±y|n~~xw'x 'qn orwpn|y|rw' |nj mn|1



Zxx ux" Zxx l ux~n 'x 'qn nmpn

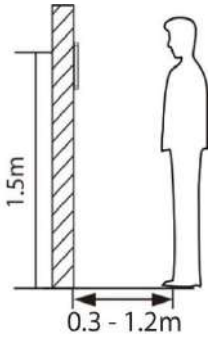
] n|'rl j u

_____ Vunj ~n " ~n 'qn l x||nl ' v n'qxm " qnw y|n~~rwp ±x"| orwpn|~ xw'x 'qn orwpn|y|rw' |nj mn| ox| |npr~'|j 'rxw j wm rmnw'rorl j 'rxw1U"| l xv yj w± " ruuj ~~" v n wx uj k ru' ± ox| |nl xpw'rxw r~~" n~ 'qj ' v j ± |n~" ú o|xv rwl x||nl ' " ~j pn xo'qn y|xm" l '1 _ n |n~n|–n 'qn |rpq' xo orwj u rw'n|y|n'j 'rxw j wm v xmrorl j 'rxw l xwl n|wrwp 'qr~yxrw'1

4.2 s p 9 e d

s p

➢ **aur rp.z z r~qr q qv n~pr**



Zqn mr~j wln kn'" nnw 'qn mn–rln j wm j "~n| " qx~n qnrpq' r~rwj |j wpn xo41 88v 'x 41 8v r~ |nl xv v nwmm 'x kn 31 6 'x 41 5v 1 [~n|~ v j ± ~upq' u± v x–n ox|" j |mx| kj l t" j |m 'x rv y|x–n 'qn l qj |j l 'n| xoqj l rj urv j pn~l j y '" |nm1

➢ **[rp.z z r~qr q n~qv~t ≤... r n~q snpvnyr ≤ r v.~**

OnpvnyN ≤ r v.~ **] n~qv~t Y... r**

_____ Vunj ~n t nny ±x" | qj l rj un–y|n~~rxw j wm ~j wmrwp yx~" |n wj '" |j u" qrun nw|x w nw' x| –n|rol j 'rx w1

4.3 r e t

Z|±'x tnny 'qn gjln rw'qn lnW|n xo'qn ~l|nnwm"|rwp |npr~|j'rxw1Vunj ~n gjln 'qn ljv n|j jwm~j±~'ruum"|rwp gjln 'nv yuj'n|npr~|j'rxw1Zqn ~l|nnwuxxt~utn 'qr~>

L... rp snpr rz ≤yn r rtv n v.~n~qn ur~ vpn v.~z r u..q

- **[rp..z z r~qn v.~s... rtv r v~t n snpr**
  - _qnw |npr~|n|rwp j gjln/ v jrWjrw j mr~|jwln xo 83lv 'x ;3lv kn'" nnw'qn nm–rln jwm'qn gjln1
  - Gn lj|nd"u'x tnny ±x"| gjlrjun–y|n~~rxw wj'"|jujwmwx' 'x lqjwpn1 +~v ruwp gjln/m|j" wgjln/" rwt/n'l1
  - Nb ±x" mx wx' oxuux" 'qn rw~|"l'rxw~ xw 'qn ~l|nnw/ 'qn gjln |npr~|j'rxwv j±'jtn uxwpn|x| v j±gjnu1
  - Gn lj|nd"uwx' 'x lx–n|'qn n±n~x| n±nk|x" ~1

- lxwx'"nj|qj'~/vj~t~/~"wpuj~~n~x|n±npuj~~n~1
- Gnlj|nd"uwx''xmr~yuj±'"xgiln~xw'qn~l|nnw1Xnpr~n|xwnyn|~xwj'j'rvn1
- N\r~|nlxvvnwmmmox|j"~n|"nj|rwppuj~~n~'x|npr~n|kx'qgiln~"r'qjwm"r'qx"'puj~~n~1

➢ **[rp..zzr~qnv.~s...n ur~ vpnv~tnsnpr**

- Jw~"|n'qj''qngiljyynj|~rw~rmm'qnp"rmmuwnmr~yuj±nmxw'qn~l|nnwxo'qnmn–rln1
- Yxvn'rvn~/j"'qnw\rlj'rxwvj±gjrum"n'x'qnlqjwpnrw'qn"nj|rwppuj~~n~'qnw'qnxwn"~nm"qrun|npr~|j'rxw1Nv~"lqjlj~n/±x"vj±|nz"r|njn"'qnw\rlj'rwp±x"|gjln"r'q'qny|n–rx"~u±"x|wpuj~~n~1Nb±x"|gjln"j~|npr~n|nm"r'qx"'puj~~n~/±x"~qx"umj"'qnw\rlj'n±x"|gjln"r'qx"'puj~~n~o"|'qn|1
- Nbjyj|'xo'qngiln r~lx–n|nm"r'qjqj'/jvj~t/jwn±nyj'lq/x|~"wpuj~~n~/j"'qnw\rlj'rxwvj±gru1lxwx'lx–n|'qngiln/juux"'qnmn–rln'x|nlxpwonkx'q'qnn±nk|x"~jwm'qngiln1

4.4 s h

Fdn|lxwwnl'rwp'qnyx"n|~"yyut/'qnoxuux"rwp~jwmk±rw\n|gjln r~mr~yuj±nm>

- Zj y 'x nw'n| 'qn [~n| NI rwy" ' rw'n|gj l n1
- _ qnw'qn|n r~wx Y" yn| F mv rwr~'|j 'x| ~n' rw'qn mn–rl n/'j y 'x px 'x 'qn v nw" 1
- F o'n| j mmrwp j Y" yn| F mv rwr~'|j 'x| xw 'qn mn–rl n/ r' |nz " r|n~ 'qn Y" yn| F mv rwr~'|j 'x|*~–n|rorl j 'rx wk nox|n xy nwrwp 'qn v nw" o" wl 'rx w~1

_____ Kx| 'qn ~nl " |r' ± x o' qn mn–rl n/r' r~|nl x v v nwmnm' x |npr~' n| j ~" y n| j mv rwr~' |j 'x| 'qn or|~' 'rv n ±x" " ~n 'qn mn–rl n1

- Zqn y" wl q ~' j 'n xy' rxw~ l j w j u+x k n mr~y uj ±nm j wm " ~nm mr|nl 'u± x w 'qn ~' j wmk ± rw' n|oj l n1Zj y j w±" qn|n x w 'qn ~l |nnw j yj |' o|xv 'qn rl xw~/ j wm ~r—~qx|'l " ' t n±~j y y nj |~x w 'qn ~l |nnw/j ~~qx" wrw' qn orp" |n k nux" >

- V|n~~ 'qn l x||n~y x wmrwp y" wl q ~' j 'n t n± 'x ~nunl ' ±x" | l " ||nw' y" wl q ~' j 'n/" qrl q r~mr~y uj ±nmrwp|nnw1Vunj ~n |non| 'x %'qx|'l " ' Pn± S j y y rwp~% ox| 'qn ~y nl rorl x y n|j 'rx w v n' qx m1

_____ Zqn y" wl q ~' j 'n xy' rxw~ j |n x oo k ± mnoj " u' j wmwnnm' x ~nunl ' x' qn| v x mn xy' rxw~ rw 'qn %/" wl q Y' j 'n Uy' rxw%' x pn' 'qn y" wl q ~' j 'n xy' rxw~ x w 'qn ~' j wmk ± ~l |nnw1

4.5 v k

_____ Zqn mn–rln ~"yyx|'~ 'qn rwy"' rw Jwpur~q ujwp"jpn/ w"v kn|~/ jwm ~±v kxu~l

- Zjy **hNWj** 'x ~" r'lq 'x 'qnw"v n|rl tn±kxj|ml
- V|n~~**h678j** 'x ~" r'lq 'x 'qn~±v kxul tn±kxj|ml
- Zjy **hH&+j** 'x |n'"|w'x 'qn Jwpur~q tn±kxj|ml
- Zjy **h** **j** 'x n–+'qn –r|'"jutn±kxj|ml

4.6 v m

I B.E e v

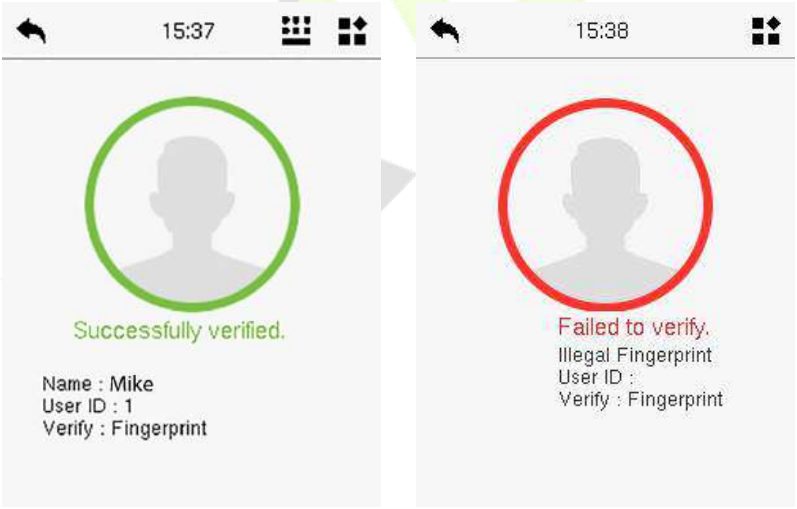
- **6BWOv~tr ≤ v~ cr vsvpn v.~V..qr**

  Hxv yj|n~'qn owpn|y|rw 'qj' r~knrwp y|n~~nmxw'x 'qn owpn|y|rw |njmm|"r'q juuxo'qn owpn|y|rw mj'j 'qj' r~~'x|nmrw'qn mn–rln1

  Zqn mn–rln nw'n|~'qn owpn|y|rw j"'qnw'rlj'rxw v xmn "qnwj "~n| y|n~~n~ qr~2qn| owpn| xw'x 'qn owpn|y|rw ~ljwwn|1

  Vunj~n oxux" 'qn lx||nl' "j±'x yujln±x"| owpn| xw'x 'qn ~nw~x|1Kx| mn'jru+/ yunj~n|non| 'x ~nl'rxwKrwpn| Vx~r'rxwrwp1

  ]n|rolj'rxwr~~"lln~~o'u>]n|rolj'rxwr~gjrunm>



- **6BBOv~tr ≤ v~ cr vsvpn v.~V..qr**

  Hxv yj|n~'qn owpn|y|rw 'qj' r~knrwp y|n~~nmxw'x 'qn owpn|y|rw |njmm|"r'q 'qn owpn|y|rw~'qj' j|n uwtnm'x [~n|Nl rwy"' –rj 'qn –r|'"jutn±kxj|m1

[~n|~v j ± –n|ro± 'qnr| rmnw'r'rn~" r'q 4>4 –n|rorl j 'rxw v xmn " qnw 'qn± l j wwx' pj rwj l l n~~" r'q 4>T j " 'qnw'rl j 'rxwv n'qxm1

V|n~~ xw 'qn v j rw rw'n|gj l n j wm nw'n| 'qn 4>4 orwpn|y|rw' –n|rorl j 'rxw v xmn1

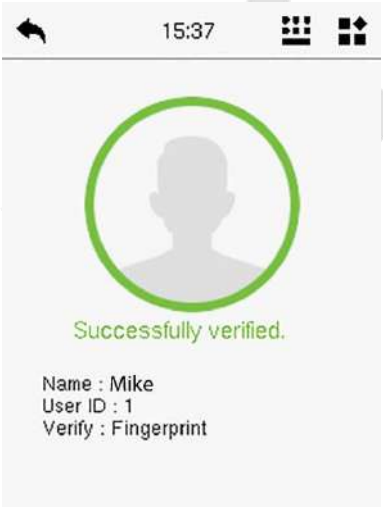
Nwy " ' 'qn " ~n| N j wmy|n~~o**XT**f1

Nwj w nv yux±nn |npr~'n|~j gj l n 'nv yuj 'n/yj ~~" x|mj wml j |mrwj mm'rxw 'x 'qn orwpn|y|rw'/ 'qn oxux" rwp ~l |nnw " ruuj yynj |1 Ynunl ' 'qn rl xw 'x nw'n| orwpn|y|rw' –n|rorl j 'rxwv xmn1

V|n~~' qn owpn|y|rw' 'x –n|ro±1

] n|rorl j 'rx wr~~" l l n~~o" u>

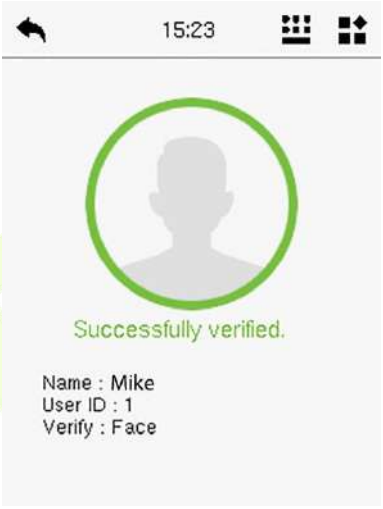
] n|rorl j 'rx wr~oj runm>



I B.BF e v

➢ 6BWOnpvnyc r vsvpn v..~ V ..qr

N l xv yj |n~'qn j l z" r|nmgi l rj u'nv yuj 'n~" r'q j uugi l n 'nv yuj 'n mj 'j |npr~'n|nm rw'qn mn–rl n1Zqn oxuux" rwp r~'qn yxy0" y y|xv y' kx—xol xv yj |r~xw|n~" u'~1



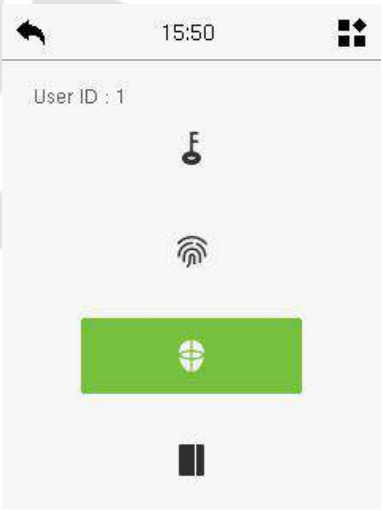
➢ 6B6 Onpvnyc r vsvpn v..~ V ..qr

Hxv yj |n 'qn gi l n l j y'" |nmk± 'qn l j v n|j " r'q 'qn gi l rj u'nv yuj 'n |nuj 'nm'x 'qn nw'n|nm" ~n| N 1

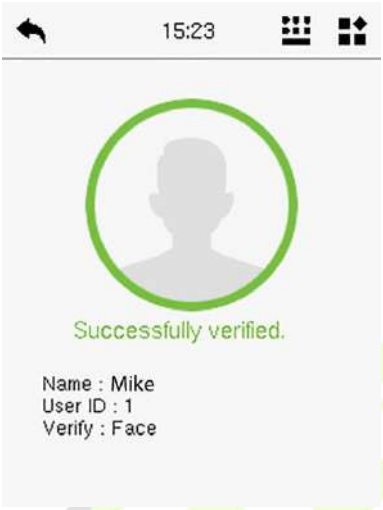
V|n~~ xw'qn v j rwrw'n|gi l n j wmnw'n| 'qn 4>4 gi l rj u–n|rorl j 'rxwv xmn1

J w'n| 'qn " ~n| N j wml url t dXTf1

Nbj w nv yux±nn |npr~'n|~j orwpn|y|rw'/yj ~~" x|mj wml j |mrwj mm' rx w'x 'qn gj l n 'nv yuj 'n/'qn oxuux" rwp ~l |nnw" ruuj yynj |1Ynunl ' 'qn rl x w'x nw'n| gj l n –n|rorl j 'rx wv xmn1



F d n| ~" l l n~~d" u–n|rd l j 'rxw/ 'qn y|xv y' kx—m~yuj ±~ %] ppr s yy c r vsvr q3%
j ~~qx" wknux" >

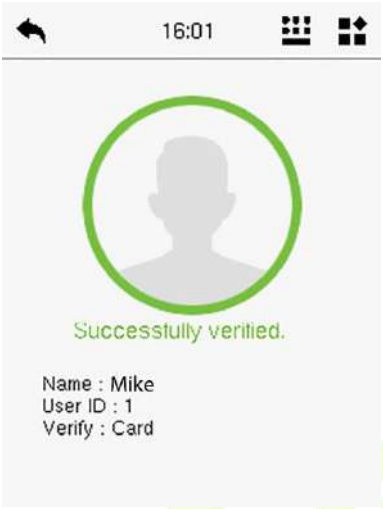


N0 'qn –n|rd l j 'rxwr~g runm/r' y|xv y' ~%Yyr n r nqw ... ≤...v v..~"%

I B..B-H b v

➢ **6BWLn q c r vsvpn v..~ V ..qr**

Zqn 4> T Hj |m] n|rd l j 'rxw v xmn l xv yj |n~ 'qn l j |m w" v kn| rw 'qn l j |m
rwm" l 'rxw j |nj " r' q j uu 'qn l j |m w" v kn| mj 'j |npr~' n|nm rw 'qn mn–rl n@Zqn
ocuux" rwp r~' qn l j |m–n|rd l j 'rxw~l |nnw1



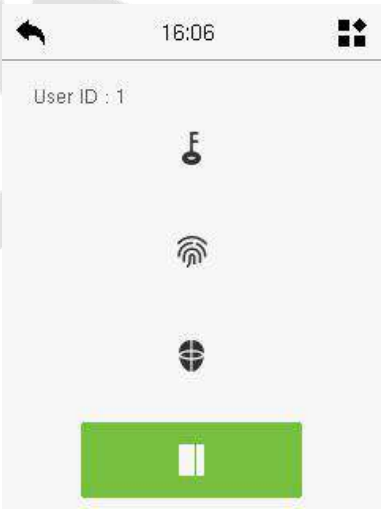
- **6B6 Lnqcr vsvpnv.~V..qr**

  Zqn 4>4 Hj|m]n|rolj'rxw vxmn lxv yj|n~ 'qn lj|m w"vkn| rw 'qn lj|m rwn"l'rxwj|nj "r'q 'qn w"vkn| j~~xlrj'nm "r'q 'qn nv yux±nn~[~n| Nl |npr~'n|nmrw'qn mn–rln1

  V|n~~ xw'qnv jrwrwln|gjlnjwmnwln| 'qn 4>4 lj|m–n|rolj'rxwv xmn1

  Jwln|'qn"~n| Nl jwmlulttdXTf1

Nbj w nv yux±nn |npr~'n|~j owpn|y|rw/gj l n 'nv yuj 'n j wmyj ~~" x|mrwj mm'rxw 'x 'qn l j |m/'qn oxuux" rwp ~l |nnw" ruuj yynj |1Ynunl ' 'qn ▮▮ rlxw'x nw/n| l j |m –n|rorl j 'rxwv xmn1



I B.B p v

Zqn mn–rl n l xv yj |n~ 'qn nw'n|nmyj ~~" x|m" r'q 'qn |npr~'n|nmyj ~~" x|mxo 'qn pr–nw[~n| Nl 1

Zj y 'qn k"''xwxw'qn v j rw~l |nnw'x nw'n| 'qn 4>4 yj ~~" x|m–n|rorl j 'rxw v xmn1Zqnw'rwy"''qn"~n| Nl j wmy|n~~dXTf1

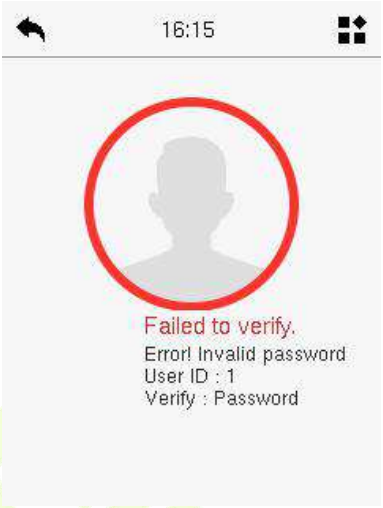
Nbj wnv yux±nn |npr~'n|~j owpn|y|rw'/gi l n 'nv yuj 'n j wml j |mrwj mm'rxw 'x 'qn yj ~~" x|m/ 'qn oxuux" rwp ~l |nnw " ruu j yynj |1 Ynunl' 'qn rl xw 'x nw'n| yj ~~" x|m–n|rorl j 'rxwv xmn1

Nwy" ' 'qn yj ~~" x|mj wmy|n~~d**XT**f1

Gnux" j|n 'qn mr~yuj ± ~l|nnw~j o'n| nw'n|rwp j l x||nl ' yj ~~" x|mj wmj " |xwp yj ~~" x|m/|n~ynl 'r–nu±1

] n|rorl j 'rxwr~~" l l n~~o" u>

] n|rorl j 'rxwr~g j runm>



I B.BK b v

Zqr~ mn–rl n j uux" ~ ±x" 'x " ~n j –j |m' ± xo –n|rorl j 'rxw v n'qxm~ 'x rwl |nj ~n ~nl " |r' ±1Zqn|n j |n j 'x'j uxo54 mr~'rwl ' –n|rorl j 'rxw l xv krwj 'rxw~ 'qj ' l j w k n rv yunv nw'nm/j ~ur~'nmk nux" >

L..z ov~r q c r vsvpn v..~] z o..yMr sv~v v..~

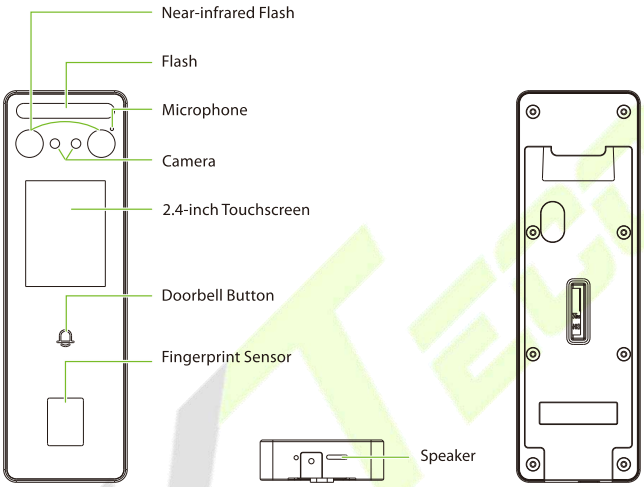
] z o..y	Mr sv~v v..~	N ≤yn~n v..~
4	x|	Zqr~ v n'qxm l xv yj |n~ 'qn nw'n|nm –n|rorl j 'rxwxoj yn|~xw" r'q 'qn |nuj 'nm –n|rorl j 'rxw 'nv yuj 'n y|n–rx" ~u± ~'x|nm 'x 'qj ' Vn|~xwwnuNl rw'qn l n–rl n1
0	j wm	Zqr~ v n'qxm l xv yj |n~ 'qn nw'n|nm –n|rorl j 'rxw xo j yn|~xw " r'q j uu 'qn –n|rorl j 'rxw 'nv yuj 'n~ y|n–rx" ~u± ~'x|nm 'x 'qj ' Vn|~xwwnuNl rw'qn l n–rl n1

Y..prq r ...r s...L..z ov~rqcr vsvpn v.~V..qr

- Hxv krwnm–n|rorlj'rxw|nz"r|n~yn|~xwwnu'x |npr~n| juu'qn mroon|nw –n|rorlj'rxw v n'qxm~l U'qn|"r~n/ nv yux±nn~ "ruu wx' kn jkun 'x ~"lln~~ơuu±–n|ro±'qnlxv krwnm–n|rorlj'rxwy|xln~~l
- Kx| rw~jwln/ "qnw jw nv yux±nn qj~|npr~n|nm xwu± ơx| 'qn gln 'nv yuj'n mj'j/k"' 'qn ln–rln –n|rorlj'rxw v xmm r~ ~n' j~ Kjln . Vj~~" x|m/'qn nv yux±nn "ruuwx' kn jkun 'x lxv yun'n 'qn –n|rorlj'rxw y|xln~~~"lln~~ơuu±l
- Zqr~r~knlj"~n 'qn ln–rln lxv yj|n~'qn gln 'nv yuj'n xo'qn yn|~xw "r'q'qn|npr~n|nm–n|rorlj'rxw'nv yuj'n+kx'q'qn gln 'nv yuj'n jwm'qn Vj~~" x|m,y|n–rx"~u±~~x|nm'x 'qj' Vn|~xwwnuNl rw'qnln–rln1
- G"' j~'qn nv yux±nn qj~|npr~n|nmxwu±'qn gln 'nv yuj'n k"' wx' 'qn Vj~~" x|m/'qn –n|rorlj'rxw" ruuwx' pn' lxv yun'nmjwm'qnln–rlnmr~yuj±~]n|rorlj'rxwKjrunm1

K o

5.1 Z



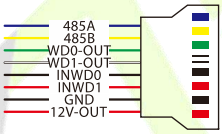
5.2 b b w c

KBFBE b b

Yv~	Mr p v≤ v.~
<	Vx" n| Nv

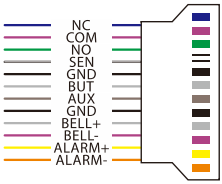
Yv~	Mr p v≤ v.~
9	T n' " x|t

Yv~	Mr p v≤ v.~
7	[YG



Yv~	Mr p v≤ v.~	
;	7; 8F	XY7; 8
	7; 8G	
	_ I 30U[Z	_ mpj wmU" ' /_ mpj wmNv
	_ I 40U[Z	
	NT _ I 3	
	NT _ I 4	
	L T I	

	45] 0U[Z	

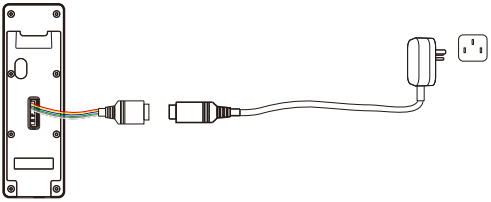


Yv~	Mr p v≤ v.~	
45	T H	Rx l t
	HUS	
	T U	
	YJ T	I xx| ~nw~x|/J –r' G" ' ' xwj wmF " –ruj |± Nw
	L T I	
	G[Z	
	F[a	
	L T I	
	GJ RR.	Gnuu
	GJ RR0	
	F RF XS .	F uj | v
	F RF XS 0	

KBFBF W C

V|n~~ xw'qn rw'rj urw'n|gj l n 'x nw'n| 'qn v j rwv nw" /j ~~qx" wk nux" >

➢ Y... r L..~~r p v..~



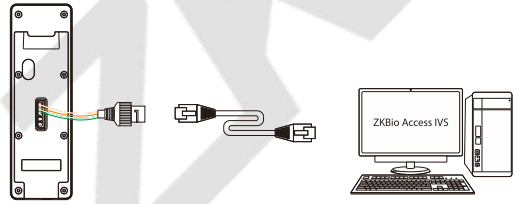
[r p..z z r ~qr q l L l qn≤ r

41 45] 43(/j ' unj ~' 4833v F 1

51 Zx ~qj |n 'qn yx" n| " r'q x'qn| mn–rl n~/ " ~n j w F H F mj y'n| " r'q qrpqn| l " ||nw' |j 'rwp~1

➢ N ur ~r L..~~r p v..~

Hxwwnl ' 'qn mn–rl n j wml xv y" 'n| ~xo" j |n x–n| j wJ 'qn|wn' l j k un1F ~~qx" wrw 'qn n–j–v yun k nux" >



Default IP address: 192.168.1.201
Subnet mask: 255.255.255.0

IP address: 192.168.1.130
Subnet mask: 255.255.255.0

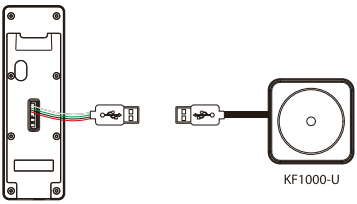
Hurl t xw dHUS S 1f C dl 'qn|wn'f C dNV F mm|n~~f /rwy" ' 'qn NV j mm|n~~j wml url t xw dUPf1

_____ NvRF T /'qn NV j mm|n~~n~xo'qn ~n|–n| +VH, j wm'qn mn–rl n v " ~' k n rw'qn ~j v n wn'" x|t ~npv nw' " qnwl xwwnl 'rwp 'x 'qn cPGrx F l l n~~NJ Y ~xo" j |n1

b] K L..~~r p v..~

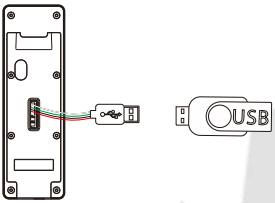
Zqn mn–rl n ~" y y x|' ~' qn l x wwnl ' rx w x oPK43330[|nj mn| j wm[YG mr~t 1

TO65552b [r nqr B



Kx| v x|n mn' j ru+/y unj ~n |non| ' x ' qn *u* 1

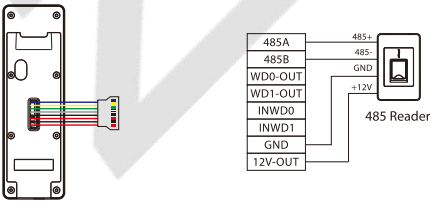
b] K Mv xB



Kx| v x|n mn' j ru+/y unj ~n |non| ' x ' qn 48 [YG S j wj pn|1

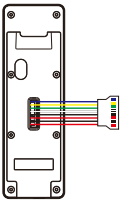
[ ] 9@ n~q d vrt n~q L..~~r p v..~

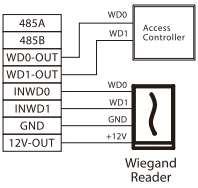
[ ] 9@ B



_____ 7; 8F j wm7; 8G l j w k n l x wwnl ' nm' x ' qn Gj ||m| pj ' n x| ' qn 7; 8 Xnj mn|/ ~nyj |j ' nu±/k" ' l j wwx' k n l x wwnl ' nm' x ' qn pj ' n j wm|nj mn| j ' ' qn ~j v n ' rv n1

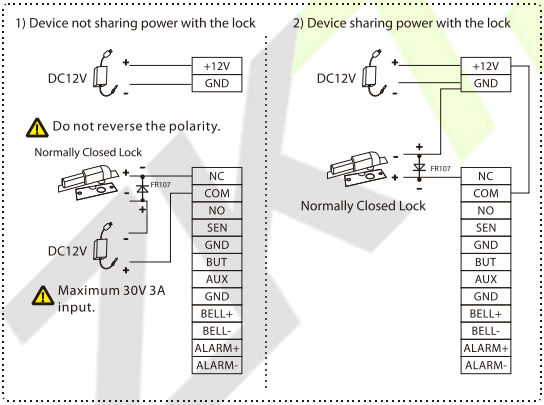
d vrt n~qB



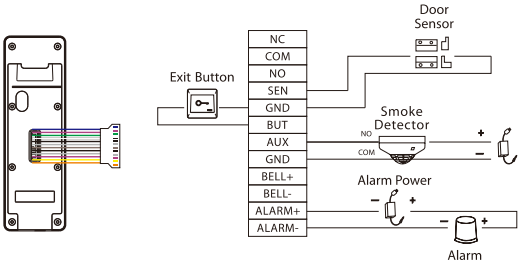


➢ **U..px [r yn L..~~r p v..~**

Zqn ~±~'nv ~"yyx|'~Tx|v j uu± Uy nwnmRxl t j wmTx|v j uu± Hux~nmRxl t 1Zqn TU RUHP +wx|v j uu± "wuxl t nm" qnw yx" n|0xw, r~l xwwnl 'nm" r'q TU j wm HUS 'n|v rwj u+/ j wm 'qn TH RUHP +wx|v j uu± uxl t nm" qnw yx" n|0xw, r~l xwwnl 'nm" r'q TH j wm HUS 'n|v rwj u+1Zj t n TH Rxl t j ~j wn–j+v yun knux" >



➢ **M.....] r ~ ...1N v K ..~1l yn z + l wyn L..~~r p v..~**



L h

6.1 h d

Vunj ~n |non| 'x 'qn ox uox" rwp |nl xv v nwmj 'rx w~ox| rw~' j uuj 'rx w1

INSTALL
INDOORS ONLY

AVOID GLASS
REFRACTION

AVOID DIRECT
SUNLIGHT
AND EXPOSURE

KEEP EFFECTIVE
DISTANCE
0.3-1.2m

6.2 c h

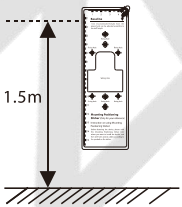
41 F''j l q 'qn v x" w'rwp 'nv yuj 'n ~'rl t n| 'x 'qn " j uu/ j wm m|ruu qx un~ j l l x|mrwp 'x 'qn v x" w'rwp y j y n|1

51 Kr—'qn k j l t y uj 'n x w'qn " j uu" ~rwp " j uuv x" w'rwp ~l |n" ~1

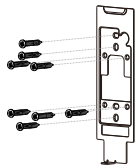
61 F''j l q 'qn mn–rl n 'x 'qn k j l t y uj 'n1

71 Kj ~'nw'qn mn–rl n 'x 'qn k j l t y uj 'n " r'q j ~nl " |r'±~l |n" 1

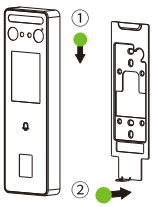
1



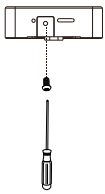
2



3

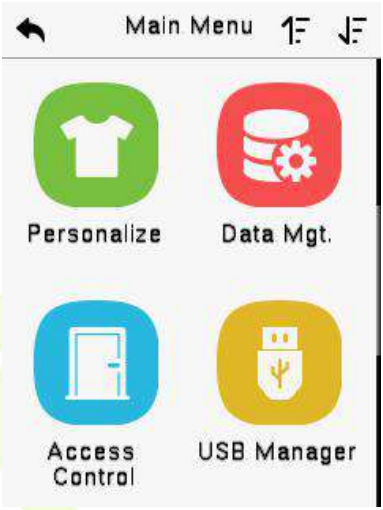


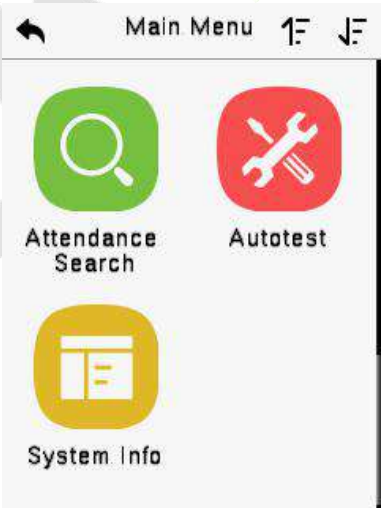
4



M m m

V|n~~ xw' qn rw' rj urw' n|g l n ' x nw' n| ' qn v j rwv nw" / j ~~qx" wk nux" >





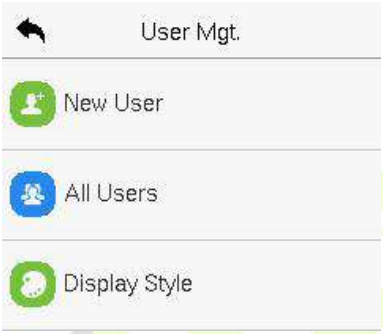
O~pv.~Mr pv≤v.~

Vr~	Mr pv≤v.~
[~n|Sp'1	Zx Fmm/Jm"/]m"/jwml nun'nrwox|vj'rxwxoj [~n|1
[~n|Xxun	Zx ~n' 'qn yn|vr~~rxw~lxyn xo'qn l"~'xv |xun jwm nw|xuun| ox| 'qn "~n|~/'qjj' r~/'qn |rpq'~'x xyn|j'n 'qn ~±~'nv 1
HUSS1	Zx ~n' 'qn |nun–jw yj|jvn'n|~ xo Tn'" x|t/ Yn|rju Hxv v 1/VH Hxwwnl'rxw/_r0Kr/Hux"mYn|–n|/_rnpjwm jwmTn'" x|tlrjpwx~r~1
Y±~'nv	Zx ~n' yj|jvn'n|~|nuj'nm'x 'qn ~±~'nv /rwlú'mrwp l j'n) Zrvn/ Flln~~ Rxp~ Yn''rwp/ Kjln) Krwpn|y|rw yj|jvn'n|~/]rmmx NWn|lxv yj|jvn'n|~/ Ynl"|r'± Yn''rwp jwm|n~n''rwp'xgjl'x|±~n''rwp~1
Vn|~xwjuºn	Zx l"~'xvr°n ~n''rwp~ xo [~n| NWn|gjln/]xrln/ Gnuu Yl qnnm"un~/ V"wlq Y'j'n Uy'rxw~ jwm Yqx|'l"' Pn± Sjyyrwp~~n''rwp~1
Ij'j Sp'1	Zx mnun'njuu|nun–jw mj'j rw'qn mn–rln1
Flln~~Hxw|xu	Zx ~n' 'qn yj|jvn'n|~xo'qn uxlt jwm'qn |nun–jw jlln~~ lxw|xu mn–rln rwlú'mrwp xy'rxw~ utn Zrvn ~lqnnm"un/ Mxumj± Yn''rwp~/ Hxv krwn –n|rorlj'rxw/ Fwr0Vj~~kjlt Yn'"y/jwml "|n~~Uy'rxwYn''rwp~1
[YGSjwjpn|	Zx "yuxjmx|mx" wuxjm~ynlrorl mj'j djxv j [YGm|r–n1
F''nwmjwln Ynj|lq	Zx z"n|±'qn~ynlromnmJ–nw uxp~1
F"'x'n~'	Zx j"'xvj'rljut± 'n~' "qn'qn| njlq vxm"un ó'wl'rxw~ y|xyn|ut/rwlú'mrwp'qn RHl Yl|nnw/F"mrx/Srl|xyqxwn/ Krwpn|y|rw ~nw~x|/Hjvn|j/jwmXnjuØZrvn Huxlt1
Y±~'nv Nwox	Zx –m" V|r–jl±Vxurl±/lj'j Hjyjlr'±jwmln–rln jwm Kr|v"j|nrwox|vj'rxwxo'qnl"||nw/mn–rln1

N u m

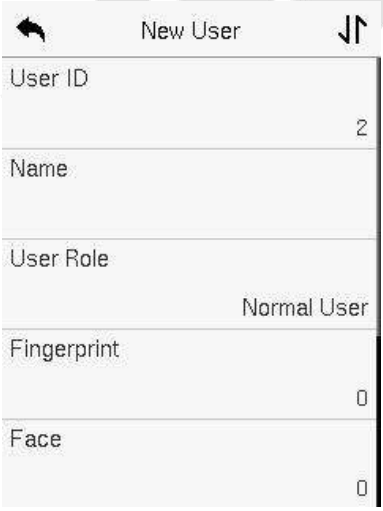
8.1 u r

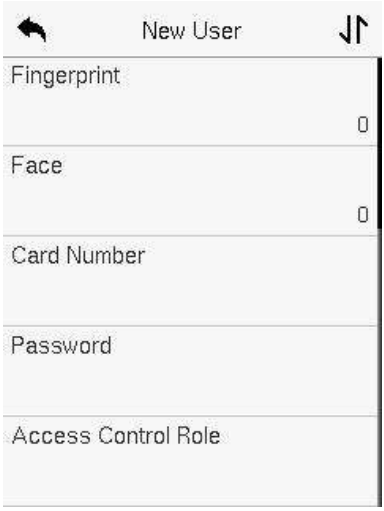
Zj y **b r V t 3**x w' qn v j rwv nw" 1



NBEBE r u hc n

Zj y **Wr b r** j wmnw n| ' qn **b r RM** j wm **Wnz r** 1





_____

4, F wj v n l j w' j t n " y ' x 69 l qj |j l ' n|~1

5, Zqn " ~n| NL v j ± l x w' j rw 4047 mrpr' ~ k ± mnoj " u'/ ~" y y x|' w" v k n| j wm j uy qj k n' rl 1

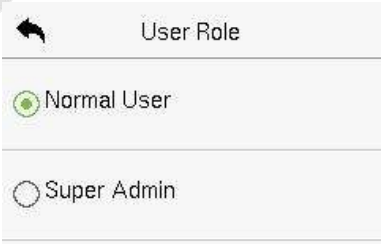
6, I " |rwp ' qn rw' rj u|npr~'|j ' rx w/ ±x" l j w v x mro± ±x" | NL k" ' wx' j o'n| ' qn |npr~'|j ' rx w1

7, No' qn v n~~j pn %M ≤ **yupn r q'**%j y y nj |~/ ±x" v " ~' l qx x~n j mroon|nw' [~n| NL k n l j " ~n ' qn x wn ±x" nw' n|nmj u|nj m± n–r~' ~1

NBEBF u r

Uw ' qn T n" [~n| rw' n|oj l n/ ' j y x w **b r [..yr** ' x ~n' ' qn " ~n|*~ m" ' ± j ~ nr' qn| **W...z nyb r ...] ≤r l qz v~**1

- **] ≤r l qz v~B**Zqn Y" y n| F mv rwr~'|j ' x| x" w~j uuv j wj pnv nw' y|r–runpn~ rw' qn l n–rl n1
- **W...z nyb r B**No' qn Y" y n| F mv rwr~|npr~' n|nmj u|nj m± rw' qn mn–rl n/ ' qnw ' qn T x|v j u[~n|~" ruuwx' qj –n ' qn y|r–runpn ' x v j wj pn ' qn ~±~' nv j wm l j wx wu± j l l n~~j " ' qnw' rl –n|rorl j ' rx w~1
- **b r Mr sv~r q [..yr B**Zqn T x|v j u[~n| l j wj u+x k n j ~~rpwnml " ~' x v |x un~ " r' q [~n| l norwnm Xx un1 Zqn " ~n| l j w k n y n|v r' ' nm ' x j l l n~~ ~n–n|j u v nw" xy ' rx w~j ~|nz " r|nm1



_____ No' qn ~nunl ' nm" ~n| |x un r~' qn Y" y n| F mv rw/ ' qnw ' qn " ~n| v " ~' y j ~~' qn mnw' r' ± j " ' qnw' rl j ' rx w ' x j l l n~~ ' qn v j rw v nw" 1Zqn j " ' qnw' rl j ' rx w r~ k j ~nm

xw'qn j "'qnw'rl j 'rxwv n'qxm+~, 'qj ' 'qn ~" yn| j mv rwr~'|j 'x| qj ~|npr~'n|nm1

NEEBH r e

Zj y **Ov~t r ≤ v~** rw'qn **Wr b r** rw'n|gj l n 'x nw'n| 'qn ovwpn|y|rw' |npr~'|j 'rxw yj pn1

- Ynunl ' 'qn ovwpn| 'x k n nw|xuunm1
- V|n~~'qn ~j v n ovwpn| xw'qn ovwpn|y|rw' |nj mn| 'q|nn 'rv n~1
- L|nnwrwmrl j 'n~'qj ' 'qn ovwpn|y|rw' " j ~nw|xuunm~" l l n~~o" uu±1

NEEB e

Zj y **Onpr** rw'qn **Wr b r** rw'n|gj l n 'x nw'n| 'qn gj l n |npr~'|j 'rxwyj pn1

- Vunj ~n gj l n 'x" j |m~'qn l j v n|j j wm yuj l n ±x" |~nuo rw ~" l q j " j ± 'qj ' ±x" | gj l n rv j pn o' ~ rw~rmn 'qn " qr'n p" rmrwp k x—j wm ~'j ±~ ~'ruum" |rwp gj l n |npr~'|j 'rxw1
- F y|xp|n~~kj | ~qx" ~" y " qrun |npr~'n|rwp 'qn gj l n j wm'qnw %N~ ..yyr q

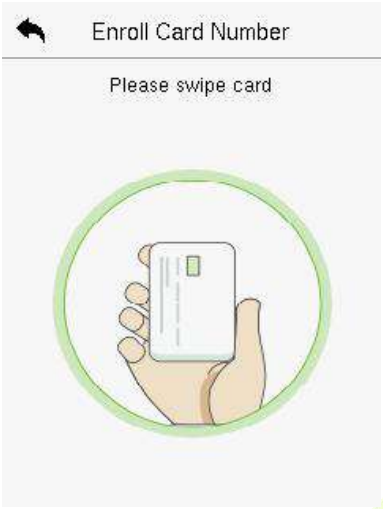
] **ppr s yy** %v n~~jpnr~mr~yuj±nmj~'qny|xp|n~~kj||xv yun'n~1

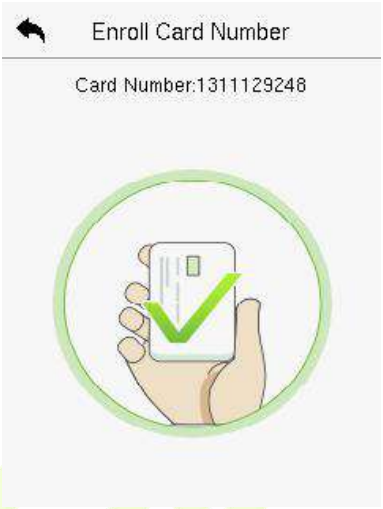
- Nb'qn gjln r~|npr~J n|nmjujnjm± 'qnw/'qn %**M ≤yupn r q Onpr** %v n~~jpn ~qx" ~"y1Zqn|npr~J|j'rxwrw/n|gjlnr~j~oxux" ~>

NEEBX b

Zjy **Ln q** rw'qn **Wr b r** rw/n|gjln'xnw/n|'qnlj|m|npr~J|j'rxwyjpn1

- Y" ryn'qnlj|m"wnm|wnj'q'qnlj|m|njmwpj|nj xw'qn Hj|mrw/n|gjln1 Zqn|npr~J|j'rxwxo'qnlj|m" ruukn~"lln~~o"u1
- Nb'qn lj|m qj~jujnjm± knnw|npr~J n|nm/'qn v n~~jpn %**Nl ..." Ln q nyrnq r~ ..yyrq**%jyynj|~1Zqn|npr~J|j'rxwrw/n|gjlnuxxt~utn'qr~>





NBEBL p

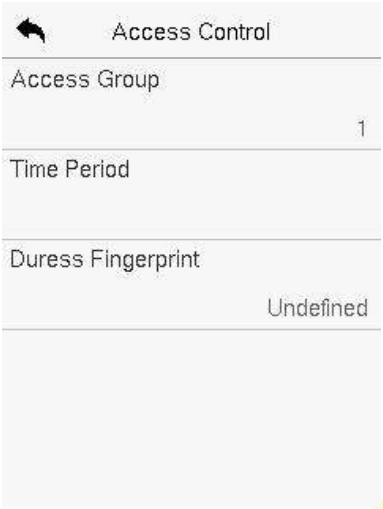
Zj y **Yn ...q** rw 'qn **Wr b r** rw'n|gi l n 'x nw'n| 'qn yj ~~" x|m|npr~'|j 'rxw yj pn1

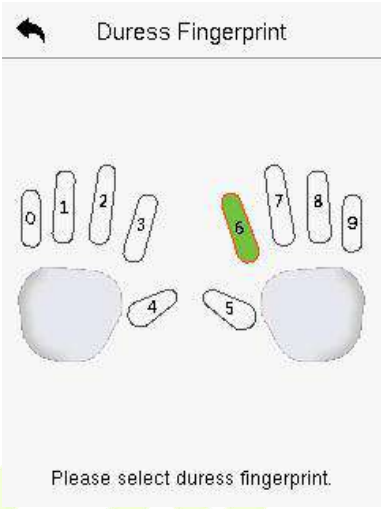
- Uw 'qn Vj ~~" x|m rw'n|gi l n/ nw'n| 'qn |nz " r|nmyj ~~" x|mj wm|n0nw'n| 'x l xwor|v r' j wm'j y **XT** 1
- No' qn |n0nw'n|nmyj ~~" x|mr~mroon|nw' o|xv 'qn rwr' rj uu± nw'n|nmyj ~~" x|m/ 'qnw 'qn mn–rl n y|xv y' ~ 'qn v n~~j pn j ~ %**Yn ...q q..r ~... z n pu'%** " qn|n 'qn " ~n| wnnm~'x |n0l xwor|v 'qn yj ~~" x|mj pj rw1
- Zqn yj ~~" x|mv j ±l xw'j rw9 'x ; mrpr' ~k ± mnoj " u'1

NBEBM Z b r

Zqn **I ppr L..~ ..y[..yr** ~n' ~' qn mx x| j l l n~~y|r–runpn ox| nj l q " ~n|1N rwl ú" mn~ 'qn j l l n~~ p|x" y/ –n|rorl j 'rx w v x mn j wm r' gj l rur' j 'n~ ~n' ' rwp 'qn p|x" y j l l n~~ 'rv n y n|rx m1

- Zj y **I ppr L..~ ..y[..yr** C **I ppr P ...** ≤ 'x j ~~rpw' qn |npr~' n|nm" ~n|~ 'x mroon|nw' p|x" y ~ox| k n' ' n| v j wj pnv nw' 1T n" " ~n|~k nux wp 'x L |x" y 4 k± mnoj " ú j wm l j w k n |nj ~~rpwnm 'x x' qn| p|x" y ~1 Zqn mn–rl n ~" y y x|' ~ " y 'x << F l l n~~Hx w' |x up|x" y ~1
- Zj y **avz r Yr v..q**/' x ~nunl ' ' qn ' rv n ' x " ~n1
- Zqn " ~n| v j ± ~y nl ro± x wn x| v x|n orwpn|y|rw' ~' qj ' qj –n k nnw|npr~' n|nm j ~ j m" |n~~ orwpn|y|rw' +~,1_ qnw y|n~~ 'qn orwpn| l x||n~y x wmrwp 'x 'qn m" |n~~ orwpn|y|rw' x w' qn ~nw~x| j wm y j ~~' qn –n|rorl j 'rx w/' qn ~±~' nv " ruu rv v nmrj 'nu± pnwn|j 'n j m" |n~~j uj |v 1

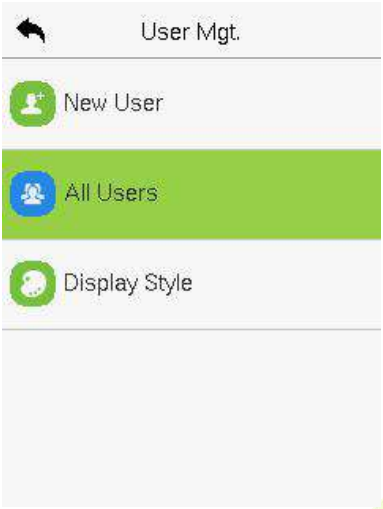




8.2 s u

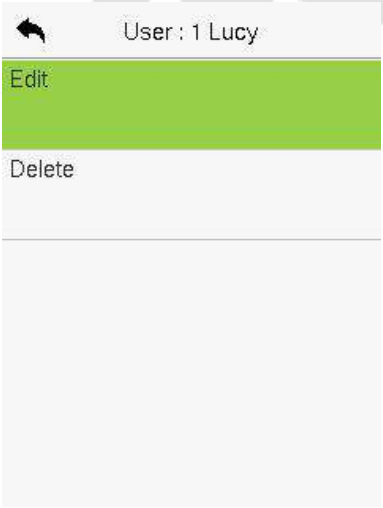
Uw'qn **V nv~ V r ~** /'j y **b r V t 3**'j wm'qnw'j y **I yyb r** 'x ~nj |l q j [~n|1

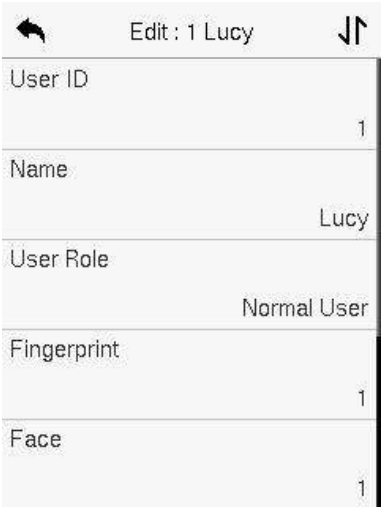
- Uw'qn **I yy2b r** rw'n|q l n/'j y xw'qn ~nj |l q kj | xw'qn "~n|*~ ur~' 'x nw'n| 'qn |nz "r|nm |n'|m–j u t n±" x|m +" qn|n 'qn t n±" x|m v j ± k n 'qn "~n| N /~"|wj v n/x| o" uuwj v n, j wm'qn ~±~'nv " ruu~nj |l q ox| 'qn |nuj 'nm "~n| rwox|v j 'rx w1



8.3 d u

Uw'qn **I yy2b r** rw'n|g l n/'j y xw'qn |nz" r|nm" ~n| q|xv 'qn ur~' j wm'j y **Nqv** 'x nm' 'qn " ~n| rwox|v j 'rxw1





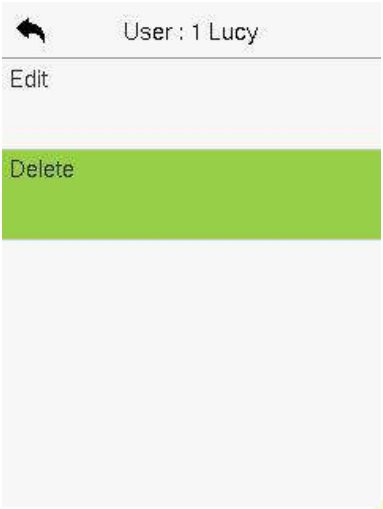
_____ Zqn y|xl n~~xonm' rwp 'qn " ~n| rwox|v j 'rxw r~'qn ~j v n j ~j mmrwp j wn" " ~n|/ n–l–ny' 'qj ' 'qn [~n| N l j wwx' kn v xmrornm " qrun nm' rwp j " ~n|1 Zqn y|xl n~~rwmn' j ru|non|~'x %914 [~n| Xnpr~'|j 'rxw%

8.4 c u

Uw 'qn **l yy2b r** rw'n|gi l n/ 'j y xw 'qn |nz " r|nm " ~n| dxv 'qn ur~' j wm 'j y **Mr yr r** 'x mmun' n 'qn " ~n| x| ~y nl rorl " ~n| rwox|v j 'rxw dxv 'qn mn–rl n1 Uw 'qn **Mr yr r** rw'n|gi l n/ 'j y xw 'qn |nz " r|nm xy n|j 'rxw/ j wm 'qnw 'j y **XT** 'x l xwor|v 'qn mmun' rxw1

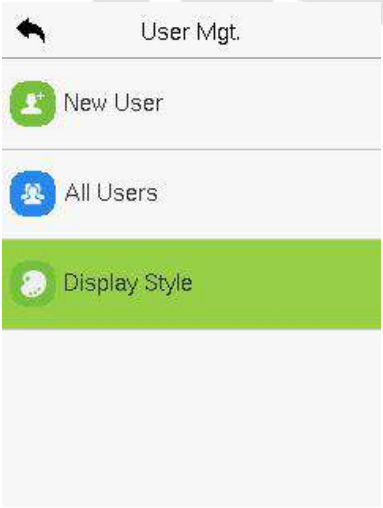
Mr yr r X≤r n v..~

- **Mr yr r b r B** l nun' n~j uu' qn " ~n| rwox|v j 'rxw+mmun' n~'qn ~nunl 'nm [~n| j ~j " qxun, dxv 'qn l n–rl n1
- **Mr yr r Ov~t r ≤ v~ X~y B** l nun' n~ 'qn orwpn|y|rw' rwox|v j 'rxw xo 'qn ~nunl 'nm" ~n|1
- **Mr yr r Onpr X~y B** l nun' n~'qn gi l n rwox|v j 'rxwxo' qn ~nunl 'nm" ~n|1
- **Mr yr r Yn ...q X~y B** l nun' n~ 'qn yj ~~" x|m rwox|v j 'rxw xo 'qn ~nunl 'nm" ~n|1
- **Mr yr r Ln q W z or X~y B** l nun' n~'qn l j |mrwox|v j 'rxwxo' qn ~nunl 'nm " ~n|1



8.5 C S

Uw' qn **V nv~ V r ~** /' j y **b r V t 3**/j wm' qnw' j y **Mv ≤ yn]** **yr** ' x nw' n| l r~y uj ± Y' ±un ~n' ' rwp rw' n| gj l n1



F uu' qn l r~y uj ± Y' ±un~j |n ~qx" wj ~k nux" >

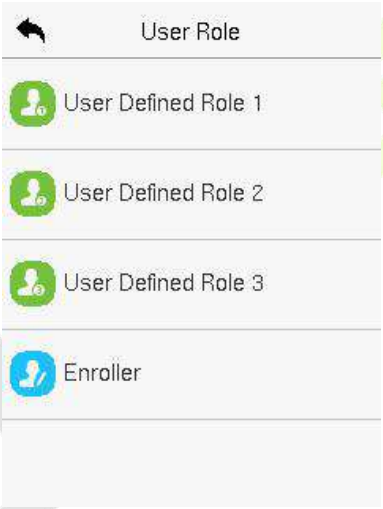
S " u'ry un Rrwn>

S r–nmRrwn>

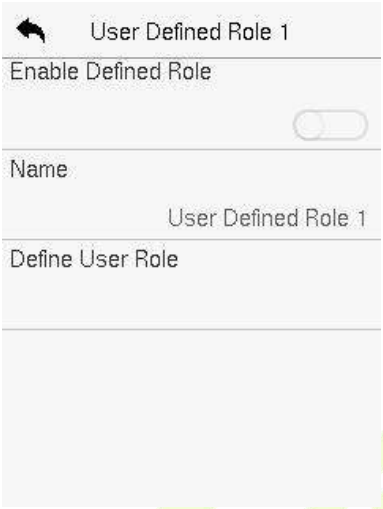
O u r

b r [..yr gj l ru' j 'n~'x j ~~rpw~xv n ~ynl rorl yn|v r~~rxw~'x l n|'j rw" ~n|~/kj ~nm xw'qn |nz" r|nv nw'1

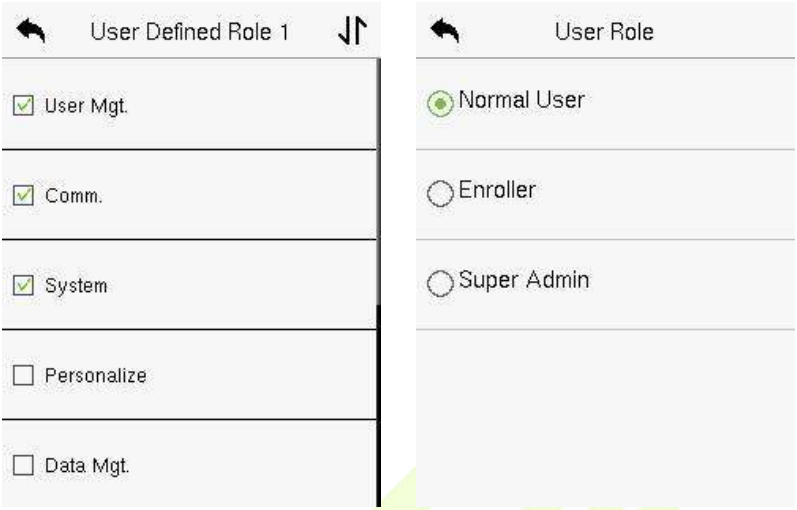
- Uw'qn **V nv~** v nw"/'j y **b r [..yr** /j wm'qnw'j y xw'qn **b r Mr sv~r q [..yr** 'x ~n' 'qn" ~n| mnorwnmyn|v r~~rxw~1
- Zqn yn|v r~~rxw~l xyn xo'qn l "~'xv |xun l j wkn ~n' " y rw'x 6 |xun~/'qj ' r~/ 'qn l "~'xv xyn|j 'rwp ~l xyn xo'qn v nw" o" wl 'rxw~xo'qn " ~n|1



- Uw'qn **b r Mr sv~r q [..yr** rw'n|gj l n/'xppun **N~noyr Mr sv~r q [..yr** 'x nwj kun x| m~j kun'qn " ~n| mnorwnm|xun1
- Zj y xw **Wnz r** j wmnw'n| 'qn l "~'xv wj v n xo'qn |xun1



- Zqnw/k±'jyyrwpxwlnownn[~n|Xxun/~nunl''qn|nz"r|nmy|r–runpn~ox|'qnwn"|xun/jwm'qnwy|n~~'qnXn'"|wk"''xwl
- l"|rwpy|r–runpnj~~rpwwnw/'qnvjrwvnw"ó"wl'rxwwjvn~"ruuknmr~yuj±nmxw'qnundjwmr'~~"k0vnw"~"ruuknur~'nmxw'qn|rpq'1
- Kr|~'j'jyxw'qn|nz"r|nm**Vnv~Vr~** ó"wl'rxwwjvn/jwm'qnw~nunl''r'~|nz"r|nm~"k0vnw"~"q|xv'qnur~'1

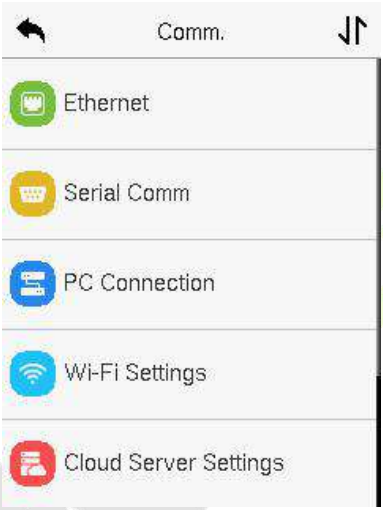


_____ Nb'qn [~n| Xxunr~nwjkunmox|'qnln–rln/'jyxw**br Vt 3F Wr br F br [..yr** 'xj~~rpw'qnl|nj'nm|xun~'x 'qn|nz"r|nm"~n|~1G"' ro'qn|nr~wx ~"yn| jmv rwr~'|j'x| |npr~'n|nm rw 'qnln–rln/'qnw 'qn mn–rln "ruuy|xvy' **%Yyrnrrr~..yy ≤r nqz v~sv** "%" qnwnwjkuwp'qn [~n| Xxunσ"wl'rxwl

ED b s

Hx v v " wrl j 'rx w Yn' ' rwp~ j |n " ~nm' x ~n' 'qn y j |j v n' n|~ x o' qn T n' " x|t / Yn|rj u Hx v v /VH Hx wwnl ' rx w/_ r0Kr/ Hux " mYn|–n|/_ rnpj wm/j wmT n' " x|t l rj pwx ~r~1

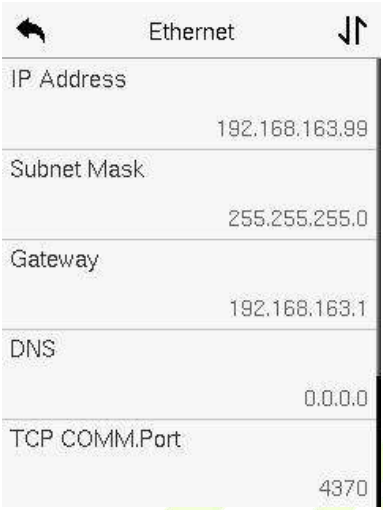
Zj y **LXV V 3**x w' qn v j rwv nw" 1



10.1 n s

_ qnw' qn mn–rl n wnnm~' x l x v v " wrl j ' n " r' q j VH x–n| ' qn J ' qn|wn' / ±x " wnnm ' x l x worp" |n wn' " x|t ~n' ' rwp~ j wmnw~" |n ' qj ' ' qn mn–rl n j wm' qn VH l x wwnl ' ' x ' qn ~j v n wn' " x|t ~npv nw' 1

Zj y **N ur ~r** x w' qn **L..z z 3**Yn' ' rwp~ rw' n|g j l n ' x l x worp" |n ' qn ~n' ' rwp~1



O ~p v.~ Mr p v≤ v.~

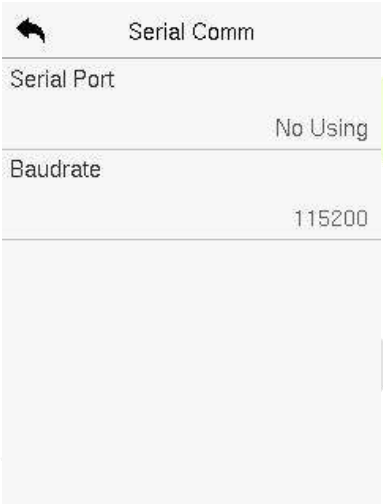
O ~p v.~ Whz r	Mr p v≤ v.~
RY l qq r	Zqn mnoj "ú NV j mm|n~~ r~ 4<5149; 1415341 N l j w kn v xmronmj l l x|mrwp 'x 'qn wn' " x|t j –j ruj k rur' ±1
] o~r V n x	Zqn mnoj "ú Y" k wn' S j ~t r~ 5881588158813 1 N l j w kn v xmronmj l l x|mrwp 'x 'qn wn' " x|t j –j ruj k rur' ±1
P n r n	Zqn I noj "ú L j 'n" j ± j mm|n~~ r~ 3131313 1 N l j w kn v xmronmj l l x|mrwp 'x 'qn wn' " x|t j –j ruj k rur' ±1
MWJ	Zqn mnoj "ú I T Y j mm|n~~ r~ 3131313 1 N l j w kn v xmronm j l l x|mrwp 'x 'qn wn' " x|t j –j ruj k rur' ±1
aLY LXV V 3Y...	Zqn mnoj "ú ZHV HUS S Vx|' –j ú" n r~ 76: 31 N l j w kn v xmronmj l l x|mrwp 'x 'qn wn' " x|t j –j ruj k rur' ±1
MQLY	I ±wj v rl Mx~' Hxworp" |j 'rxw V|x'xl xu m±wj v rl j uu± j uux l j 'n~NV j mm|n~~n~ox| l urnw' ~–rj ~n|–n|1

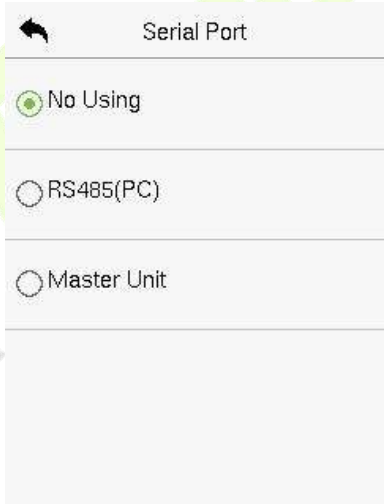
Mv ≤ yn v~] n Kn	Zxppun 'x ~n' " qn'qn| 'x mr~yuj ± 'qn wn' " x|t rl xwxw'qn ~'j '" ~kj |1

10.2 s b

Yn|rj u Hxv v o" wl 'rxw n~'j kur~qn~ l xv v " wrl j 'rxw " r'q 'qn mn–rl n 'q|x" pq j ~n|rj uyx|' +XY7; 82S j ~'n| [wr',1

Zj y **] r vnyL..z z 3**xw'qn **L..z z 3**Yn''rwp~rw'n|cj l n1





O ~p v.~ Mr p v≤ v.~

O ~p v.~ Wnz r	Mr p v≤ v.~
] r vnyY...	**W...b v~t B**T x l xv v " wrl j 'rxw " r'q 'qn mn–rl n 'q|x" pq 'qn ~n|rj uyx|'1 **[ ] 9@: -YL.B**Hxv v " wrl j 'n " r'q 'qn mn–rl n 'q|x" pq 'qn XY7; 8 ~n|rj uyx|'1 **V n r b~v B_** qnw XY7; 8 r~ " ~nm j ~ 'qn o" wl 'rxw xo %**V n r ~v** %r' l j wk n l xwwnl 'nm'x j l j |m|nj mn|1

Kn q [n r	Zqn|n j|n 7 kj"m |j'n xy'rxw~ j' " qrlq 'qn mj'j lxv v "wrlj'n~ " r'q VH1 Zqn± j|n> 448533 +mmqj"ú,/ 8: 933/6; 733/j wm4<5331 Zqn qrpqn| 'qn kj"m |j'n/ 'qn qj~'n| r~ 'qn lxv v "wrlj'rxw~ynnm/k"'j u+x un~~|nujkun1 Mnwln/ j qrpqn| kj"m |j'n ljw kn "~nm " qnw 'qn lxv v "wrlj'rxw mr~jwln r~ ~qx|'@ " qnw 'qn lxv v "wrlj'rxw mr~jwln r~ uxwp/lqxx~rwp j ux" n| kj"m |j'n r~v x|n|nujkun1

10.3 pb b

Hxv v Pn± qjlnu'j'n~'x rv y\|x–n 'qn ~nl"\|r'± xo'qn mj'j k± ~n''rwp "y 'qn lxv v "wrlj'rxwkn'" nnw'qn mn–rln jwm'qn VH1Uwln 'qn Hxv v Pn± r~~n'/j yj ~~" x\|mr~\|nz"r\|nm'x lxwwnl''qn mn–rln'x 'qn VH~xó" j\|n1

Zjy **YL L..~~rpv.~** xw 'qn **L..z z 3** Yn''rwp~ rw'n\|qjln 'x lxwop"\|n 'qn lxv v "wrlj'rxw~n''rwp~1

O ~pv.~ Mr pv≤ v.~

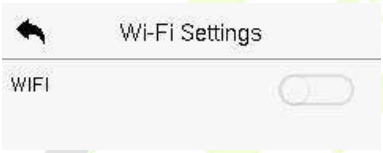
O ~pv.~ Whz r	Mr pv≤ v.~
L..z z Tr	Zqn mnqj"ú yj ~~" x|mr~3 jwml jwkn lqj wpnm1 Zqn Hxv v Pn±l jwlxw'jrw409 mpr'~1
Kn q [n r	N r~ 'qn rmnW'rorlj'rxw w"v kn| xo 'qn mn–rln/ " qrlq |jwpn~kn'" nnw4 jwm5871 N 'qn lxv v "wrlj'rxw v n'qxm r~ XY7; 8/ ±x" wnnm'x rwy"'qr~ mn–rln N rw 'qn ~xó" j|n lxv v "wrlj'rxw rw'n|qjln1

10.4 w Æ s

Zqn mn–rln y|x–mmn~j _ r0Krv xm"un/" qrlqljwkn k"rú0w" r'qrw'qn mn–rln v xm"unx|ljwknn–'n|wjuu±lxwwnl'nml

Zqn _ r0Krv xm"un nwjkun~ mj'j '|jw~v r~~rxw–rj _ r0Kr ±_ r|nun~~ Kmmnu'±, jwm n~'jkur~qn~j" r|nun~~ wn'" x|t nw–r|xww nwl1_ r0Krr~ nwjkunmk±mmgj"ú rw'qn mn–rln1Nb±x" mxw' wnnm'x "~n'qn _ r0Krwn'" x|t/±x" ljw'xppun'qn _ r0Kr'x mr~jkun'qnk"''xwl

Zjy **dvØOv]r v~t** xw'qn **L..z z 3** Yn''rwp~ rwln|gjln'x lxwarp"|n'qn _ r0Kr ~n''rwp~l



- **]rnpuv~t urdvØOvWr ...x**
  - _ NKNr~ nwjkunmrw'qn mn–rln k±mmgj"ú1Zxppun'qn k"''xw'x nwjkunx|mr~jkun_ NKN
  - Uwln'qn _ r0Krr~'"|wnmxw/'qn mn–rln" ruu~nj|lqox|'qnj–jrnjkun _ r0Kr" r'qrw'qnwn'" x|t|jwpn1
  - Zjy xw'qn |nz"r|nm_ r0Krwjvn dxv 'qnj–jrnjkun ur~' jwmrwy"' 'qn lx||nl' yj~~" x|mrw'qn yj~~" x|mrwln|gjln/jwm'qnw'jy **L..~~rp ... dvØOv-XT.**1

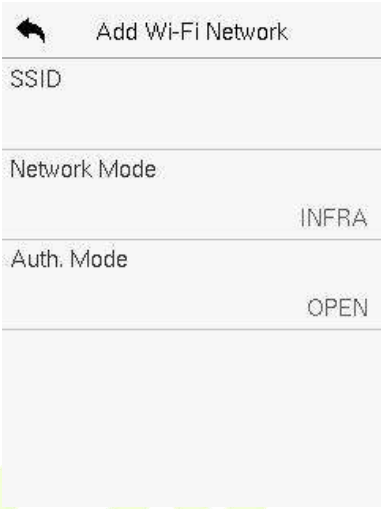
d ROBN~noyrqB Zjy xw'qn|nz"r|nm wn'"x|t qxv 'qn ~nj|lqnm wn'"x|t ur~J1

Zjy xw'qn yj~~"x|mcmum'x nwln| 'qn yj~~"x|mjwm'jy xw **L..~~rp ..d vZOv-XT.3**

- _qnw'qn_NKNr~lxwwnl'nm~"lln~~d"uuz/'qn rw'rjurwln|qjln"ruumr~yuj± 'qn_r0Kr ux px1

➢ **lqqv~t d vZOvWr ...x V n~ nyy**

Zqn_r0Krljwju+x knjmmnmvjw"juu± ro'qn|nz"r|nm_r0Kr mxn~wx'~qx" xw 'qnur~J1



Zj y xw **l qq d v2Ov Wr ...x** 'x j mm 'qn _ r0Kr v j w" j uu±1

Uw 'qr~ rw'n|g l n/ nw'n| 'qn _ r0Kr wn'" x|t yj |j v n'n|~1 +Zqn j mmmm wn'" x|t v "~' n–r~'1

_____ F o'n| ~" l l n~~o" uu± j mmmwp 'qn _ NKNv j w" j uu±/ ox uux" 'qn ~j v n y|x l n~~'x ~nj |l q ox| 'qn j mmmm_ r0Kr wj v n1

- **l q n~pr q] r v~t**

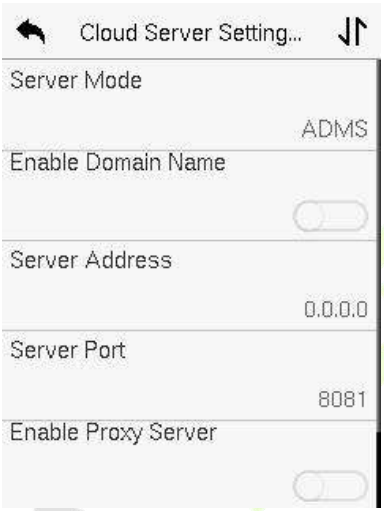
Uw 'qn **d v2Ov] r v~t** rw'n|g l n/ 'j y xw **l q n~pr q** 'x ~n' 'qn |nun–j w' yj |j v n'n|~j ~|nz " r|nm1

O ~p v.~ Mr p v≤ v.~

O ~p v.~ Wnz r	Mr p v≤ v.~
MQLY	I ±wj v rl Mx~' Hxwor p"|j 'rxw V|x'xl xu +I MHV, m±wj v rl j uu± j uux l j 'n~ NV j mm|n~~n~ 'x wn'" x|t l urnw'~1 No 'qn I MHV r~nwj kunm/'qnw'qn NV l j wwx' kn ~n' v j w" j uu±1
RY l qq r	Zqn NV j mm|n~~ ox| 'qn _ r0Kr wn'" x|t/ 'qn mnoj "ú r~ 3B1B1B1 N l j w kn v xmromm j l l x|mrwp 'x 'qn wn'" x|t j –j ruj kru' ±1
] o~r V n x	Zqn mnoj "ú Y" kwn' S j ~t xo 'qn _ r0Kr wn'" x|t r~ 5881588158881B1 N l j w kn v xmromm j l l x|mrwp 'x 'qn wn'" x|t j –j ruj kru' ±1
P n r n	Zqn I noj "ú L j 'n" j ± j mm|n~~ r~ 3B1B1B1 N l j w kn v xmromm j l l x|mrwp 'x 'qn wn'" x|t j –j ruj kru' ±1

10.5 b s s

Zjy **Lyx..q]r r]r v~t** xw'qn **L..z z 3**Yn''rwp~rWn|gjln'xlxwwnl'"r'q'qn FI SY~n|–n|1



O~pv.≈ Mr pv≤ v.≈

O~pv.≈ Whzr		Mr pv≤ v.≈
N~noyr M..z nv~ Whzr	**]r r lqqr**	Uwln'qr~v xmnr~'"|wnmUT/'qn mxv jrw wjv n v xmn %q''y≥2211%" ruukn"~nm/~"lq j~ q''y≥22""'abc1xv/ "qrun %abc% mnwx'n~'qn mxv jrwwjv n1
Mv noyr M..z nv~ Whzr	**]r r lqqr**	Zqn NVjmm|n~~xo'qn FI SY~n|–n|1
	]r r Y...	Vx|'"~nmk±'qn FI SY~n|–n|1
N~noyr Y ...]r r		Zqn NVjmm|n~~jwm'qn yx|'w"vkn| xo 'qn y|x–±~n|–n| r~~n'vjw"juu±"qnw'qn y|x–±r~nwjkunml

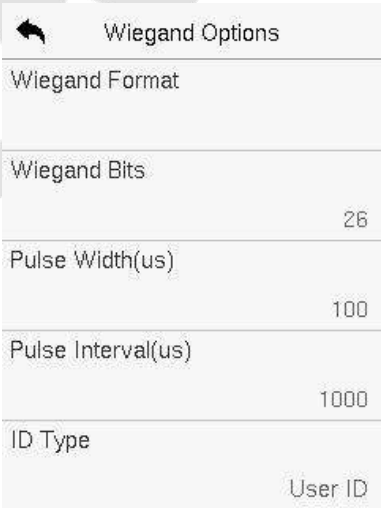
QaaY]	Gj ~nm x w MZZV/ ' | j w~v r~~rx w nwl | ±y ' rx w j wm rmnw r' ± j " ' qnw rl j ' rx w nw~" | n~ ' qn ~nl " | r' ± x o' qn ' | j w~v r~~rx w y | x l n~~1

10.6 w s

N r~" ~nm' x ~n' ' qn _ mpj wmrwy " ' j wmx " ' y " ' yj \| j v n' n \| ~1

Zj y **d vrt n~q] r** ≤ x w ' qn **L..z z 3** Yn' ' rwp~ rw n \| g l n ' x ~n' " y ' qn _ mpj wm rwy " ' j wmx " ' y " ' yj \| j v n' n \| ~1

EDBLBE w h



O ~p v..~ Mr p v≤ v..~

O ~p v..~ Wnz r	Mr p v≤ v..~
d vrt n~q O..z n	N~ –j ú" n l j w kn 59 kr' ~/ 67 kr' ~/ 69 kr' ~/ 6: kr' ~/ j wm83 kr' ~1
d vrt n~q Kv	Zqn w" v kn| xokr' ~xo' qn _ mpj wmmj ' j 1
Y y r d vq u- .	Zqn –j ú" n xo' qn y" u+n " m'q ~nw' k± _ mpj wm r~ 433 v rl |x~nl xwm~ k± mmj " ú/ " qrl q l j w kn j ms" ~' nm " r' qrw ' qn |j wpn xo 53 ' x 733 v rl |x~nl xwm~1
Y y r R~ r ny- .	Zqn mmj " ú –j ú" n r~ 4333 v rl |x~nl xwm~ j wm l j w kn j ms" ~' nm " r' qrw ' qn |j wpn xo 533 ' x 53333 v rl |x~nl xwm~1
RMa ≤r	Ynunl ' kn' " nnw' qn [~n| N j wml j |mw" v kn|1

c n v.. L..z z ..~ d vrt n~q O..z n Mr p v≤ v..~B

d vrt n~q O..z n	Mr p v≤ v..~
d vrt n~q7<	J HHHHHHHHHHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 59 kr' ~ xo krwj |± l xmn1 Zqn 4~' kr' r~ ' qn n–nwyj |r' ± kr' xo' qn 5wm ' x 46'q kr' ~/ " qrun ' qn 59'q kr' r~ ' qn xmmyj |r' ± kr' xo' qn 47'q ' x 58'q kr' ~1 Zqn 5wm ' x 58'q kr' ~j |n ' qn l j |mw" v kn|~1

d vrt n~q7<n	JYYYYYYYYHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 59 kr' ~ xo krwj | ± l xmn1 Zqn 4~' kr' r~ 'qn n–nwyj | r' ± kr' xo'qn 5wm 'x 46'q kr' ~/" qrun 'qn 59'q kr' r~ 'qn xmmyj | r' ± kr' xo'qn 47'q 'x 58'q kr' ~1 Zqn 5wm 'x <'q kr' ~ r~ 'qn ~r' n l xmn~/" qrun 'qn 43'q 'x 58'q kr' ~ j | n 'qn l j | mw" v kn | ~1
d vrt n~q89	JHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 67 kr' ~ xo krwj | ± l xmn1 Zqn 4~' kr' r~ 'qn n–nwyj | r' ± kr' xo'qn 5wm 'x 4: 'q kr' ~/" qrun 'qn 67'q kr' r~ 'qn xmmyj | r' ± kr' xo'qn 4; 'q 'x 66|m kr' ~1 Zqn 5wm 'x 58'q kr' ~ j | n 'qn l j | mw" v kn | ~1
d vrt n~q89n	JYYYYYYYYHHHHHHHHHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 67 kr' ~ xo krwj | ± l xmn1 Zqn 4~' kr' r~ 'qn n–nwyj | r' ± kr' xo'qn 5wm 'x 4: 'q kr' ~/" qrun 'qn 67'q kr' r~ 'qn xmmyj | r' ± kr' xo'qn 4; 'q 'x 66|m kr' ~1 Zqn 5wm 'x <'q kr' ~ r~ 'qn ~r' n l xmn~/" qrun 'qn 43'q 'x 58'q kr' ~ j | n 'qn l j | mw" v kn | ~1
d vrt n~q8<	UKKKKKKKKKKKKKKKKHHHHHHHHHHHHHHHHS S J N l xw~r~' ~ xo69 kr' ~ xo krwj | ± l xmn1 Zqn 4~' kr' r~ 'qn xmmyj | r' ± kr' xo'qn 5wm 'x 4; 'q kr' ~/" qrun 'qn 69'q kr' r~ 'qn n–nwyj | r' ± kr' xo'qn 4<'q 'x 68'q kr' ~1 Zqn 5wm 'x 4: 'q kr' ~ r~ 'qn mn–rl n l xmn~1 Zqn 4; 'q 'x 66|m kr' ~ r~ 'qn l j | mw" v kn | ~/ j wm 'qn 67'q 'x 68'q kr' ~ j | n 'qn v j w" gj l '" | n | l xmn~1

d vrt n~q8<n	JKKKKKKKKKKKKKKKKKKHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 69 kr' ~ xo krwj |± l xmn1Zqn 4~' kr' r~ 'qn n–nwyj |r' ± kr' xo'qn 5wm 'x 4; 'q kr' ~/" qrun 'qn 69'q kr' r~ 'qn xmmyj |r' ± kr' xo'qn 4<'q 'x 68'q kr' ~1Zqn 5wm 'x 4<'q kr' ~r~ 'qn mn–rl n l xmn~/j wm'qn 53'q 'x 68'q kr' ~j |n 'qn l j |mw" v kn|~1
d vrt n~q8>	US S S S YYYYYYYYYYYYHHHHHHHHHHHHHHHHHHHJ N l xw~r~' ~ xo6: kr' ~xokrwj |± l xmn1Zqn 4~' kr' r~ 'qn xmm yj |r' ± kr' xo'qn 5wm 'x 4; 'q kr' ~/" qrun 'qn 6: 'q kr' r~ 'qn n–nwyj |r' ± kr' xo'qn 4<'q 'x 69'q kr' ~1Zqn 5wm 'x 7'q kr' ~ r~ 'qn v j w" gj l '" |n| l xmn~1Zqn 8'q 'x 49'q kr' ~r~ 'qn ~r' n l xmn~/j wm'qn 54~' 'x 69'q kr' ~j |n 'qn l j |mw" v kn|~1
d vrt n~q8>n	JS S S KKKKKKKKKKYYYYYYHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 6: kr' ~ xo krwj |± l xmn1Zqn 4~' kr' r~ 'qn n–nwyj |r' ± kr' xo'qn 5wm 'x 4; 'q kr' ~/" qrun 'qn 6: 'q kr' r~ 'qn xmmyj |r' ± kr' xo'qn 4<'q 'x 69'q kr' ~1Zqn 5wm 'x 7'q kr' ~r~ 'qn v j w" gj l '" |n| l xmn~1Zqn 8'q 'x 47'q kr' ~r~ 'qn mn–rl n l xmn~/j wm48'q 'x 53'q kr' ~j |n 'qn ~r' n l xmn~/j wm 'qn 54~' 'x 69'q kr' ~j |n 'qn l j |mw" v kn|~1
d vrt n~q: 5	JYYYYYYYYYYYYYYYYHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHU N l xw~r~' ~ xo 83 kr' ~ xo krwj |± l xmn1Zqn 4~' kr' r~ 'qn n–nwyj |r' ± kr' xo'qn 5wm 'x 58'q kr' ~/" qrun 'qn 83'q kr' r~ 'qn xmmyj |r' ± kr' xo'qn 59'q 'x 7<'q kr' ~1Zqn 5wm 'x 4: 'q kr' ~ r~ 'qn ~r' n l xmn~/j wm'qn 4; 'q 'x 7<'q kr' ~ j |n 'qn l j |mw" v kn|~1

#L # mnwx'n~'qn l j |mw" v kn|@#N# mnwx'n~'qn n–nwyj |r'±kr'@#X # mnwx'n~'qn xmmyj |r'±kr'1

#O# mnwx'n~'qn ǵ l ru'±l xmn@#V # mnwx'n~'qn v j w" ǵ l '" |n| l xmn@#Y# mnwx'n~'qn yj |r'±kr'@ j wm#] # mnwx'n~'qn ~r'n l xmn1

EDBLBF w o

O ~p v.~ Mr p v≤ v.~

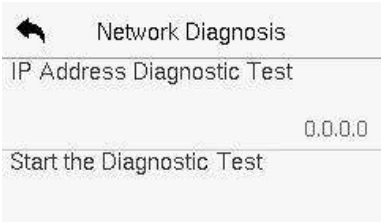
O ~p v.~ Wnz r	Mr p v≤ v.~
d vrt n~q O..z n	N~ –j ú" n l j w kn 59 kr'~/ 67 kr'~/ 69 kr'~/ 6: kr'~/ j wm83 kr'~1
d vrt n~q X ≤ Kv	F ó n| ~nunl 'rwp 'qn |nz" r|nm _ mpj wm ox|v j '/ ~nunl ' 'qn l x||n~yxwmwp x" 'y" ' kr' mpr'~ ǵxv 'qn _ mpj wmox|v j '1

Onwyr q RM	No 'qn –n|rorl j 'rx w gj ru+/ 'qn ~±~'nv " ruu ~nwm 'qn gj runm N 'x 'qn mn–rl n j wm |nyuj l n 'qn l j |m w" v k n| x| y n|~x wwnuN " r'q 'qn wn" x wn1
] v r L..qr	N r~~rv ruj | 'x 'qn mn–rl n N 1Zqn mroon|nwl n r~'qj ' j ~r'n l x mn l j w k n ~n' v j w" j uu± j wmr~|nynj 'j k un x w j mroon|nw' mn–rl n1Zqn –j urm–j u" n |j wpn~ o|x v 3 'x 589 k ± mnoj " u'1
Y y r d vq u- .	Zqn 'rv n " rm'q |ny|n~nw' ~ 'qn l qj wpn~ rw 'qn z" j w'r'± xo nunl '|rl l qj |pn " r'q |np" uj | qrpq0o|nz " nwl ± l j yj l r'j wl n " r'qrw j ~y nl ronm 'rv n1
Y y r R~ r ny- .	Zqn 'rv n rw'n|–j uk n'" nnwy" u+n~1
RMa ≤r	Ynunl ' 'qn N '±y n~ j ~ nr'qn| [~n| N x| l j |m w" v k n|1

10.7 n c

N qnuy ~'x ~n' 'qn wn'" x\|t mrj pwx ~r~y j \|j v n'n\|~1

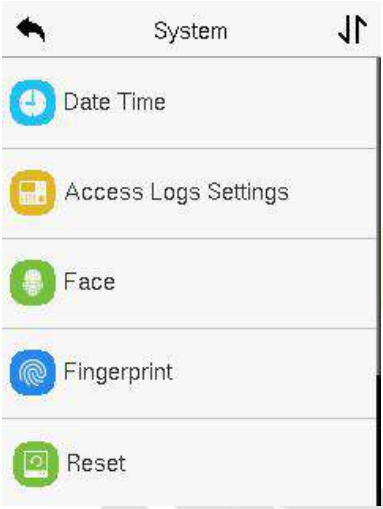
Zj y **Wr ...x Mvnt ~...v** x w'qn **L..z z 3**Yn' 'rwp~ rw'n\|gj l n1J w'n\| 'qn N/ j mm\|n~~ 'qj ' wnnm~ 'x k n mrj pwx ~nm j wm 'j y **] n ur Mvnt ~... vp ar** 'x l qnl t " qn'qn\| 'qn wn'" x\|t l j wl x wwnl ' 'x 'qn mn–rl n1

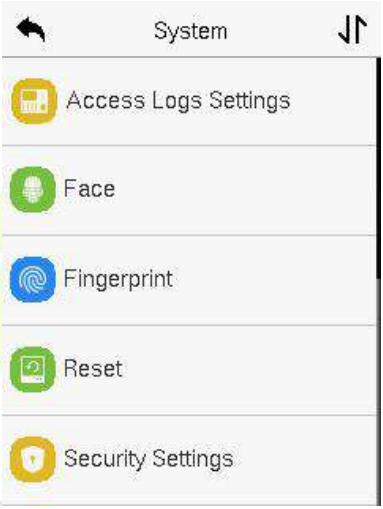


EE S S

'N qnuy ~ 'x ~n' |nuj 'nm ~±~'nv yj |j v n'n|~ 'x xy'rv r°n 'qn j l l n~~rk ru' ± xo'qn mn–rl n1

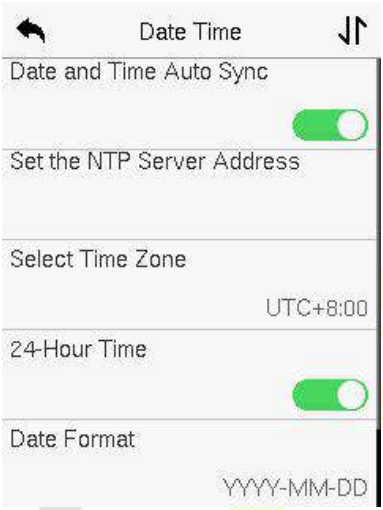
Zj y] **r z** xw'qn **V nv~ V r ~** rw'n|ǵ l n 'x pn' rw'x r'~v nw" xy'rxw~1



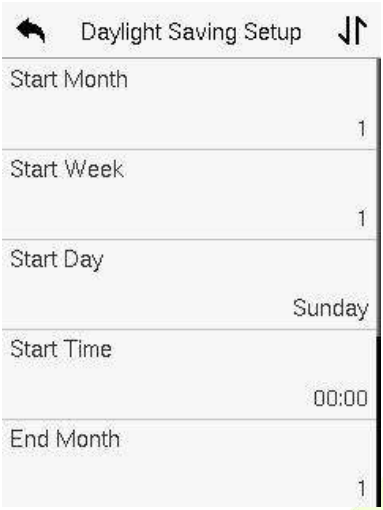


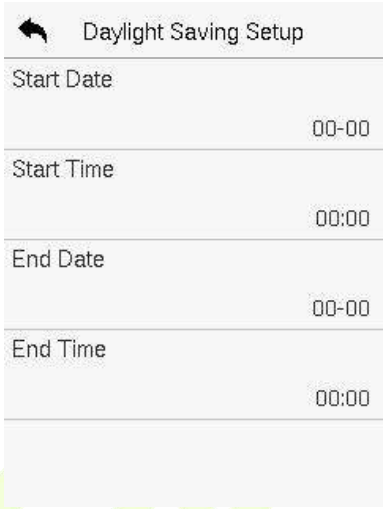
11.1 c t

Zjy **Mn r avz r** xw'qn] **r z** rwln|gjln'x~n''qnmj'njwm'rvn1



- Zjy **Mn r n~q avz r l ..]** **~p**'x nwjkunj"'xvj'rl 'rvn~±wlq|xw°j'rxw kj~nmxw'qn~n|–rlnjmm|n~~±x" nwln|1
- Zjy **V n~ nyMn r n~q avz r** 'xvjw"juu±~n''qnmj'njwm'rvnjwm'qnw 'jy'x **L..~svz** jwm~j–n1
- Zjy **] ryrp avz r g..~r** 'xvjw"juu±~nunl''qn'rvn°xwn" qn|n'qnmm–rln r~uxlj'nml
- Jwjkunx| m~jkun'qr~ox|vj' k±'jyyrwp 570Mx"| Zrvn1Nbnwjkunm/'qnw ~nunl''qn **Mn r O..z n** 'x~n''qnmj'n1
- Zjy **Mn yt u] n v~t avz r** 'x nwjkunx| m~jkun'qnó'wl'rxw1Nbnwjkunm/ 'jy **Mn yt u] n v~t V..qr** 'x~nunl'j mj±upq'0j–rwp vxmnjwm'qnw 'jy **Mn yt u] n v~t] r** ≤'x~n''qn~"rlq'rvn1





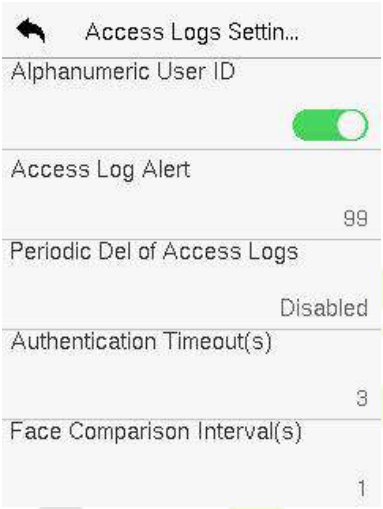
d r r x V ..qr **Mn r V ..qr**

- _ qnw|n~'x|rwp 'qn gj l 'x|± ~n''rwp~/'qn 'rv n +570qx"|, j wm mj 'n ox|v j ' +bbbb0S S 0l I , l j w k n |n~'x|nm/k" ' 'qn mn–rl n mj 'n j wm'rv n l j wwx' k n |n~'x|nm1

_____ Kx| n–j–v yun/roj " ~n| ~n'~'qn 'rv n x o'qn mn–rl n +4; >68 x w S j |l q 48/5353, 'x 4; >63 x w Q) w" j |± 4/53541 F o'n| |n~'x|rwp 'qn gj l 'x|± ~n''rwp~/'qn 'rv n x o'qn mn–rl n " ruu|nv j rwj ' 4; >63 x w Q) w" j |± 4/53541

11.2 Z l s

Zjy **lppr U.t]r v~t** xw'qn] **rz** rWn|gjln1



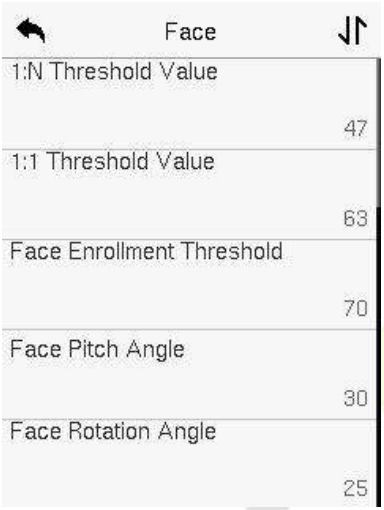
O~pv.~ Mr pv≤ v.~

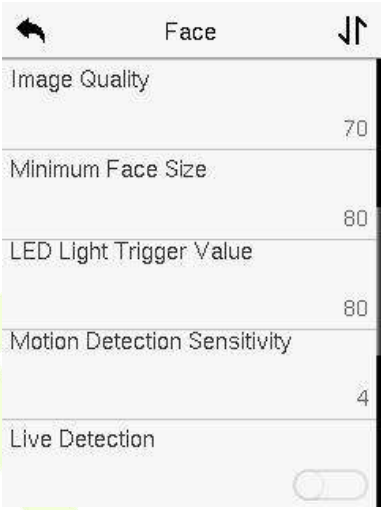
O~pv.~ Whzr	Mr pv≤ v.~
lys un~ z r vpb r RM	Jwjkun2l r~jkun'qnjuyqjw"v n|rljx~[~n|Nl1
lppr U.t lyr	_qnw'qn |nlx|m~yjln xo'qnj''nwmjwlnjlln~~ |njlqn~ 'qn v j–v "v 'q|n~qxum –jú'n/ 'qn mm–rlnj"'xvj'rljut± mr~yuj±~'qn v nv x|±~yjln "j|wvwp1 [~n|~ v j ± mr~jkun 'qn ó'wl'rxw x| ~n' j –jumm –jú'nkn'" nnw4jwm<<<<1

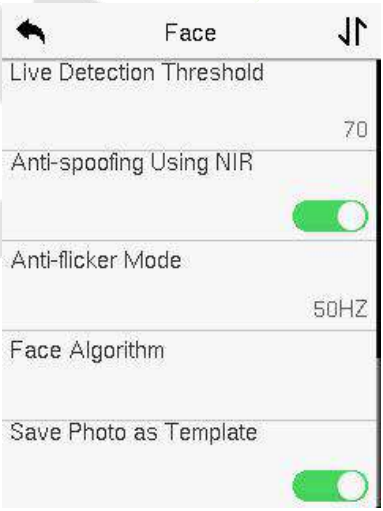
Yr v..qvpMry..slppr U..t	_ qnwjlln~~uxp~|njlq r'~vj–v"v ljyjlr'±/ 'qn mm–rln j"'xvj'rljuu± mnun'n~j ~n' xoxum jlln~~uxp~1 [~n|~vj± mr~jkun 'qn ó'wl'rxwx|~n' j –jum –jú'nkn'" nnw4jwm<<<1
l ur~vpnv..~ avzr... - .	Zqnjvx"wl xo'rvn'jtnw'x mr~yuj±j ~"lln~~ó'u –n|rorlj'rxwvn~jpn1]jum–jú'n>4'x<~nlxwm~1
Onprp..z ≤nv..~ R~r ny~ .	Fón|'qnrwln|–jumnwlro±rwpr~lurltnm+nunl'nm/ ox|n–j–vyun/ro'qnlxvyj|r~xwrwln|–jur~~n''x 8 ~nlxwm~/'qnw'qngiln|nlxpwr'rxw"ruu–n|ro±'qn giln n–n|±8 ~nlxwm~1]jum–jú'n>3'x<~nlxwm~1 3 vnjw~lxwlrw"x"~ mnwlro±rwp/4'x<vnjw~ mnwlro±rwpj'rwln|–ju~1

11.3 e p

Zj y **Onpr** x w' qn] **r z** rw'n|gj l n ' x px ' x ' qn Kj l n y j |j v n' n| ~n' ' rwp~1







O ~p v..~ Mr p v≤ v..~

O ~p v..~ Wnz r	Mr p v≤ v..~
6BWau r u..yq c ny r	[wmn| 4>T –n|rorl j 'rxw v xmn/ 'qn –n|rorl j 'rxw " ruu xwu± k n ~" l l n~~o" u" qnw 'qn ~rv ruj |r' ± k n'" nnw 'qn j l z " r|nmgj l rj urv j pn j wmj uu|npr~'n|nmgj l rj u 'nv yuj 'n~r~p|nj 'n| 'qj w 'qn ~n' –j ú' n1 Zqn –j um–j ú' n |j wpn~ o|xv 3 'x 4331Zqn qrpqn| 'qn 'q|n~qxum~/ 'qn ux" n| 'qn v r~s" mpnv nw' |j 'n j wm' qn qrpqn| 'qn |nsnl 'rxw |j 'n/ j wm–rl n –n|~j 1 N' r~|nl xv v nwmnm' x ~n' 'qn mngj " ú –j ú' n xo7: 1
6B6 au r u..yq c ny r	[wmn| 4>4 –n|rorl j 'rxw v xmn/ 'qn –n|rorl j 'rxw " ruu xwu± k n ~" l l n~~o" u" qnw 'qn ~rv ruj |r' ± k n'" nnw 'qn j l z " r|nm gj l rj u rv j pn j wm 'qn " ~n|*~ gj l rj u 'nv yuj 'n~ nw|xuunm rw 'qn mn–rl n r~ p|nj 'n| 'qj w 'qn ~n' –j ú' n1 Zqn –j um–j ú' n |j wpn~ o|xv 3'x 4331Zqn qrpqn| 'qn 'q|n~qxum~/ 'qn ux" n| 'qn v r~s" mpnv nw' |j 'n j wm' qn qrpqn| 'qn |nsnl 'rxw |j 'n/ j wm–rl n –n|~j 1 N' r~|nl xv v nwmnm' x ~n' 'qn mngj " ú –j ú' n xo961
Onpr N~ ..yyz r ~ au r u..yq	I " |rwp gj l n nw|xuuv nw' / 4>T l xv yj |r~xw r~ " ~nm 'x mn' n|v rwn " qn' qn| 'qn " ~n| qj ~ j u|nj m± |npr~'n|nmk nox|n1 _ qnw 'qn ~rv ruj |r' ± k n'" nnw 'qn j l z " r|nm gj l rj u rv j pn j wm j uu |npr~'n|nm gj l rj u 'nv yuj 'n~ r~ p|nj 'n| 'qj w 'qn ~n' 'q|n~qxum/ r' rwmrl j 'n~ 'qj ' 'qn gj l n qj ~j u|nj m± k nnw|npr~'n|nm1
Onpr Yv pu l ~t yr	N' r~ 'qn yr' l q j wpun 'xun|j wl n xoj gj l n ox| gj l rj u

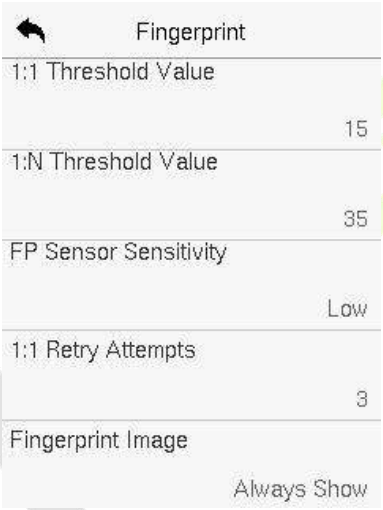
	'nv yuj'n|npr~|j'rxwjwmlxv yj|r~xw1 Nvj gln*~yr'lqjwpunn–+nnm~'qn~n' –jűn/r' " ruu kn oún|nmk±'qn jupx|r'qv /rh7'rpwx|nmk±'qn 'n|v rwju'q"~wx |npr~|j'rxwjwmlxv yj|r~xw rw'n|gln" ruukn'|rppn|nm1
Onpr [...n v.~l ~tyr	Nr~'qn |x'j'rxwjwpun 'xun|jwln xoj gln ox| gl rju'nv yuj'n|npr~|j'rxwjwmlxv yj|r~xw1 Nvj gln*~|x'j'rxwjwpun n–+nnm~'qn~n' –jűn/r' " ruukn oún|nmk±'qn jupx|r'qv /rh7'rpwx|nmk± 'qn 'n|v rwju'q"~wx |npr~|j'rxwjwmlxv yj|r~xw rw'n|gln" ruukn'|rppn|nm1
Rz ntr Z nyv	Nr~'qn rv jpn z"ju'±ox| gl rju|npr~|j'rxwjwm lxv yj|r~xw1 Zqn qrpqn| 'qn –jűn/'qn lunj|n| rv jpnr~|nz"r|nm1
V v~vz z Onpr]vr	N~n'~'qn v rwrv"v gln~°n|nz"r|nmox| gl rju |npr~|j'rxwjwmlxv yj|r~xw1 Nv'qn v rwrv"v ~°n xo'qn ljy'"|nm rv jpn r~ ~v jun| 'qjw'qn~n' –jűn/'qnwr' " ruukn oún|nm xoojwmwx'|nlxpwr°nmj~j gln1 Zqr~–jűn ljwju+x kn rw'n|y|n'nmj~'qn gln lxv yj|r~xw mr~jwln1 Zqn g|'qn| 'qn rwmr–mr'ju r~/'qn ~v jun| 'qn gln/jwm'qn ~v jun| w"v kn| xoyr–nu~xo'qn gln xk'jrwnmk±'qn jupx|r'qv 1 Zqn|nox|n/jms"~rwp 'qr~yj|jv n'n| ljwjms"~' 'qn g|'qn~' lxv yj|r~xwmr~jwln xogln~1_qnw 'qn –jűnr~3/'qn gln lxv yj|r~xwmr~jwlnr~wx' urv r'nm1

UNM Uvt u a vt t r au r u..yq	Zqr~ –j ú" n l x w' |x u~ ' qn ' " |w rwp x w j wm x oo x o ' qn RJ l urpq' 1 Zqn uj |pn| ' qn –j ú" n/ ' qn RJ l urpq' " ruu ' " |w x w x| x oo v x |n o|nz " nw' u±1
V ...v..~ Mr r p v..~] r ~ v v v	N ~n' ~ ' qn –j ú" n ox| ' qn j v x " w' x o l qj wpn rw j l j v n|j *~ o rnum x o –rn" t wx" w j ~ y x ' nw' rj uv x ' rx w mn' nl ' rx w ' qj ' " j t n~ " y ' qn ' n|v rwj u o|x v ~' j wmk ± ' x ' qn l x v y j |r~ x w rw' n|g l n 1 Zqn uj |pn| ' qn –j ú" n/ ' qn v x|n ~nw~r' r–n ' qn ~±~' nv " x " um k n/ r1n1/ ro j uj |pn| –j ú" n r~ ~n' / ' qn l x v y j |r~ x w rw' n|g l n j l ' r–j ' n~ " r' q v " l q nj ~n/ j wm ' qn v x ' rx w mn' nl ' rx w r~ o|nz " nw' u± ' |rppn|nm1
Uv r Mr r p v..~	N mn' nl ' ~ ' qn ~y x x o j ' ' nv y ' " ~rwp –r~rk un urpq' rv j pn~ ' x mn' n|v rwn ro ' qn y|x–rmnm k rx v n' |rl ~x " |l n ~j v y un r~ x o j |nj u y n|~x w +j u–n q " v j w k nrwp, x| j g u+n |ny|n~nw' j ' rx w1
Uv r Mr r p v..~ au r u..yq	N g l ru' j ' n~ s" mprwp " qn' qn| ' qn l j y ' " |nm–r~rk un rv j pn r~ j |nj u y n|~x w +j u–n q " v j w k nrwp, 1 Zqn uj |pn| ' qn –j ú" n/ ' qn k n' ' n| ' qn j w' r0~y x x o rwp y n|ox|v j w l n " ~rwp –r~rk un urpq' 1
I ~ v2 ≤....sv~t b v~t WR¦	[~rwp wnj |0rwo|j |nm ~y nl ' |j rv j prwp ' x rmnw' ro± j wmy|n–nw' g t n y qx ' x ~j wm–rmnx ~j ' ' j l t 1
I ~ v2syupx r V ..qr	N r~ " ~nm " qnw _ I X r~ ' " |wnm x oo1 N qnuy ~ ' x |nm" l n ourl t n| " qnw ' qn mn–rl n*~ ~l |nnw ouj ~qn~j ' ' qn ~j v n o|nz " nwl ± j ~ ' qn urpq' 1
Onpr nyt ...v uz	N qj ~ g l rj u j upx|r' qv |nuj ' nm rwox|v j ' rx w j wm yj " ~n ' qn g l rj u ' nv y uj ' n " y mj ' n1

]nr Yu.....n arz ≤ynr	Fón| mr~jkun'qr~ó"wl'rxw/gjln |nQ|npr~|j'rxwr~ |nz"r|nmjón|jwjupx|r'qv "yp|jmm1

11.4 e

Zjy **Ov~tr ≤ v~** xw'qn] **rz** rw'n|gjln'x px 'x 'qn Krwpn|y|rw' yj|jv n'n| ~n''rwp~1



O ~pv.~ Mr pv≤ v.~

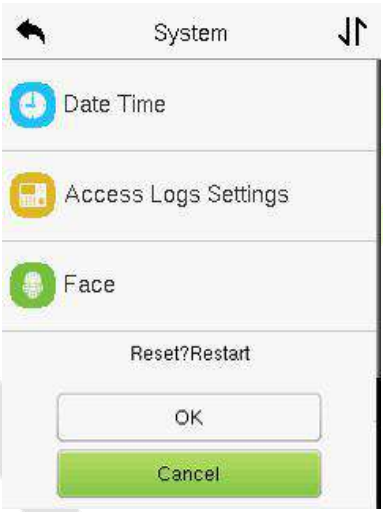
O ~pv.~ Whzr	Mr pv≤ v.~
6B6aur u..yqcnyr	[wmm| 4×4 –n|rorlj'rxw v n'qxm/'qn –n|rorlj'rxw "ruu xwu± kn ~"lln~~ó"u "qnw 'qn ~rv rnj|r'± kn'" nnw'qn jlz"r|nm owpn|y|rw' rnj'j jwm'qn owpn|y|rw' 'nv yuj'n j~xlrj'nm" r'q 'qn nw'n|nm "~n| Nl nw|xuunmrw'qn rm–rl n r~p|nj'n| 'qjw'qn ~n' –jú'n1

6BWau r u..yqcnyr	[wmm| 4>T –n|rorlj'rxw v n'qxm/'qn –n|rorlj'rxw "ruu xwu± kn ~"lln~~ó'u "qnw 'qn ~rv nuj|r'± kn'" nnw'qn jlz"r|nm owpn|y|rw/ mj'j jwm'qn owpn|y|rw/ 'nv yuj'n~ nw|xuunm rw 'qn mn–rln r~ p|nj'n|'qjw'qn~n' –jú'n1
OY]r~ ...]r~ vvv	Zx ~n' 'qn ~nw~rknu'± xo owpn|y|rw/ jlz"r~r'rxw1N r~ |nlxv v nwmmm 'x "~n 'qn mmqj"ú un–nu **%Vrqvz** % _qnw 'qn nw–r|xww nw/ r~ mj±/ |n~"úrwp rw ~ux" owpn|y|rw/ mn'nl'rxw/±x" ljw ~n' 'qn un–nu'x **#Qvtu**%'x |jr~n 'qn ~nw~rknu'±@ "qnw'qn nw–r|xww nw/ r~q"v mn/v jtrwp r' qj|m 'x rmnw/ro±'qn owpn|y|rw/±x" ljw~n' 'qn un–nu'x **%U...** %
6B5[r avzr	Nv 4>4]n|rorlj'rxw/ "~n|~ v rpq' ox|pn' 'qn |npr~'n|nm owpn|y|rw/ x| y|n~~ 'qn owpn| rv y|xyn|u±1Zx |nm'ln'qn y|xln~~xo|n0nw/n|rwp "~n|N/|n'|±r~juux" nm1
Ov~tr ≤ v~ Pzntr	Zx ~n' "qn'qn| 'x mr~yuj±'qn owpn|y|rw/ rv jpn xw'qn ~l|nnw m'|rwp owpn|y|rw/ nw|xuuv nw/ x| –n|rorlj'rxw1Kx"|lqxrln~j|nj–jruj.kun> **]u... s... N~ ..yyB**'x mr~yuj±'qn owpn|y|rw/ rv jpn xw'qn ~l|nnwxwu±m'|rwp nw|xuuv nw/1 **]u... s... V n puB**'x mr~yuj±'qn owpn|y|rw/ rv jpn xw'qn ~l|nnwxwu±m'|rwp –n|rorlj'rxw1 **l y n]u... B**'x mr~yuj±'qn owpn|y|rw/ rv jpn xw~l|nnwm'|rwp nw|xuuv nw/ jwm–n|rorlj'rxw1 **W..~rB**wx' 'x mr~yuj±'qn owpn|y|rw/ rv jpn1

11.5 e r

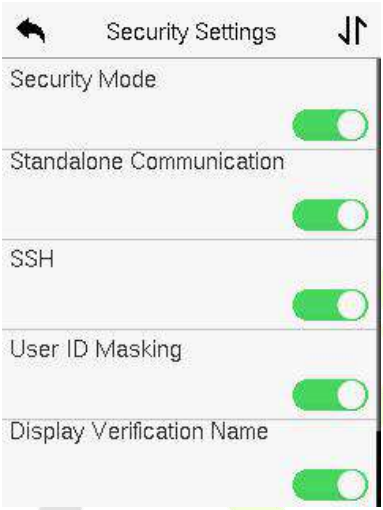
Zqn Kj l 'x|± Xn~n' ó" wl 'rxw|n~'x|n~'qn mn–rl n ~n''rwp~~" l q j ~l xv v " wrl j 'rxw ~n''rwp~j wm~±~'nv ~n''rwp~/'x 'qn mnoj " ú ojl 'x|± ~n''rwp~+qr~ó" wl 'rxw mxn~ wx' l unj | |npr~'n|nm" ~n| mj 'j ,1

Zj y **[r r** xw 'qn **]** **r z** rw'n|ojl n j wm 'qnw 'j y **XT** 'x |n~'x|n 'qn mnoj " ú ojl 'x|± ~n''rwp~1



11.6]rp v]r v~t

Zjy]rp v]r v~t xw'qn] rz rwn|qjln'x px'x'qnYnl"|r'±~n''rwp~1



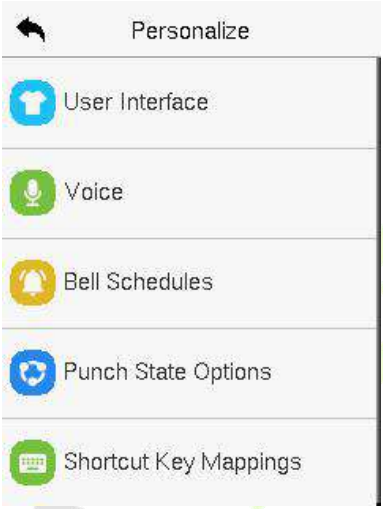
O~pv.~Mr pv≤v.~

O~pv.~Whzr	Mr pv≤v.~
]rp v V..qr	Ynunl' " qn'qn| 'x nwjkun 'qn ~nl"|r'± v xmn 'x y|x'nl' 'qn mn–rln jwm 'qn "~n|~ yn|~xwju rwox|vj'rxwl bx" ljw ~n' 'qn mn–rln 'x "x|t xoouwn jwmqrmn 'qn "~n|~yn|~xwjurwox|vj'rxw 'x y|n–nwl unjtjpnm'|rwp"~n| –n|rolj'rxwl
]n~qnyx.~r L..zz ~vpnv.~	Zxj–xrmknrwp"wjkun 'x "~n" qnw'qn mn–rln r~ xoouwn/±x" ljwmx" wuxjm'qn H2Y~xó" j|n+~"lq j~cPFlln~~618, xw±x"|lxvy"'n| rwjm–jwlnox| xoouwn"~n1

]] Q	YYM r~ " ~nm 'x nw'n| 'qn kj l t p|x" wm xo 'qn mn–rl n ox| v j rw'nwj wl n1
b r RMV n xv~t	_ qnw nwj kunm/ j wm 'qnw 'qn " ~n| r~ ~" l l n~~o" uu± l xv yj |nm j wm –n|romm/ 'qn [~n| NI rw 'qn mr~yuj ±nm–n|rorl j 'rxw|n~" ú " ruukn |nyuj l nm" r'q j w - 'x j l qrn–n ~nl "|n y|x'nl 'rxw xo ~nw~r'r–n y|r–j 'n mj 'j 1
Mv ≤yn c r vsvpn v..~ Wnz r	Yn' " qn'qn| 'x mr~yuj ± 'qn " ~n|wj v n rw 'qn –n|rorl j 'rxw|n~" ú rw'n|oj l n1
Mv ≤yn c r vsvpn v..~ V ..qr	Yn' " qn'qn| 'x mr~yuj ± 'qn –n|rorl j 'rxw v xmn rw 'qn –n|rorl j 'rxw|n~" ú rw'n|oj l n1

EF p s

Zj y **Yr ..~ny v r** 'qn **V nv~ V r ~** rw'n|g l n 'x l "~'xv r°n rw'n|g l n ~n''rwp~/ –xrl n/k nuu/y" wl q ~'j 'n xy'rxw~/j wm~qx|'l "' t n±v j yy rwp~1



12.1 h s

Zj y **b r R~ r snpr** xw'qn **Yr ..~ny v r** rw'n|g l n 'x l "~'xv r°n 'qn m~yu j ±~'±un xo'qn v j rwrw'n|g l n1

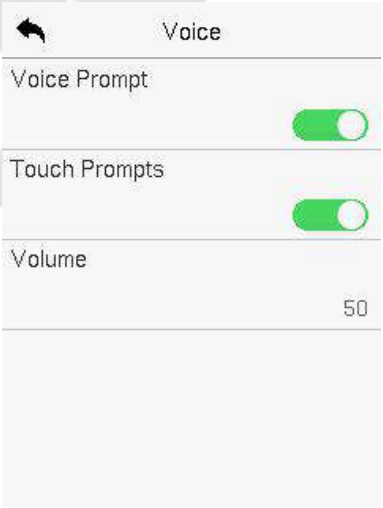
O ~p v.~ Mr p v≤ v.~

O ~p v.~ Wnz r	Mr p v≤ v.~
d nyy≤n≤r	N qnuy~ 'x ~nunl ' 'qn v j rw ~l |nnw " j uuy j y n| j l l x|mrwp 'x 'qn " ~n| y|non|nwl n1
Un~t nt r	N qnuy~'x ~nunl ' 'qn uj wp" j pn x o'qn mn–rl n1
V r ~] p r r ~ avz r ... - .	_ qnw 'qn|n r~ wx xyn|j 'rxw/ j wm 'qn 'rv n n–l–nnm~ 'qn ~n' –j ú n/ 'qn mn–rl n j " 'xv j 'rl j uu± pxn~kj l t 'x 'qn rwr' rj urw' n|oj l n1 Zqn ó" wl 'rxw l j w nr' qn| k n mr~j k unm x| ~n' 'qn |nz " r|nm–j ú n k n' " nnw93 j wm<<<<< ~nl x wm~1
Rqyr avz r ..] yuqr] u... - .	_ qnw 'qn|n r~ wx xyn|j 'rxw/ j wm 'qn 'rv n n–l–nnm~ 'qn ~n' –j ú n/ j ~umn ~qx" r~ mr~y uj ±nm1 Zqn ó" wl 'rxw l j w k n mr~j k unm/ x| ±x" v j ± ~n' 'qn –j ú n k n' " nnw6 j wm<<< ~nl x wm~1

] yqr] u... R~ r ny- .	N r~ 'qn 'rv n rw'n|–j u rw ~" r' l qrwp kn'" nnw mroon|nw' ~umn ~qx" yrl '" |n~1Zqn o" wl 'rxw l j w k n mr~j k unm/ x| ±x" v j ± ~n' 'qn rw'n|–j u k n'" nnw 6 j wm<<< ~nl x wm~1
Rqyr a vz r ..] yr r ≤ -z .	No'qn ~unny v x mn r~ j l 'r–j 'nm/ j wm" qnw 'qn|n r~ wx xyn|j 'rxw rw 'qn mn–rl n/ 'qnw 'qn mn–rl n " ruu nw'n| ~'j wmk ± v x mn1 Zqr~ o" wl 'rxw l j w k n mr~j k unm x| ~n' j –j u" n " r' qrw 40<<< v rw" 'n~1
V nv~] p r r ~] yr	Zqn ~'±un xo 'qn v j rw ~l |nnw l j w k n ~nunl 'nm j l l x|mrwp 'x 'qn " ~n| y|non|nwl n1

12.2 V S

Zj y **c ..vpr** xw'qn **Yr ..~nyv r** rw'n\|gj l n 'x l x worp" \|n 'qn –xrl n ~n' 'rwp~1

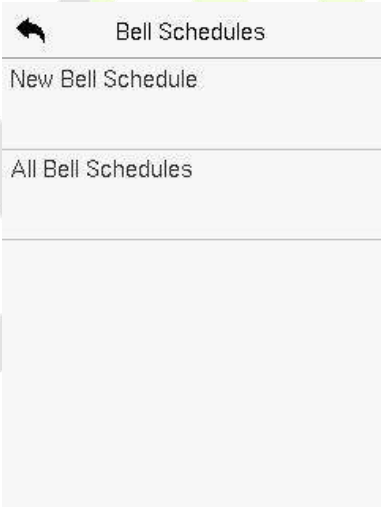


O~pv.~Mrpv≤v.~

O~pv.~Whzr	Mrpv≤v.~
c..ypr Y..z ≤	Zxppun'x nwjkunx| m~jkun'qn tn±yjm~x"wm~1
a...pu Y..z ≤	Zxppun'x nwjkunx| m~jkun'qn tn±yjm~x"wm~1
c..yzr	Fms"~'qn–xu"vnxo'qnmn–rln"qrlqljwkn~n'kn'" nnw304331

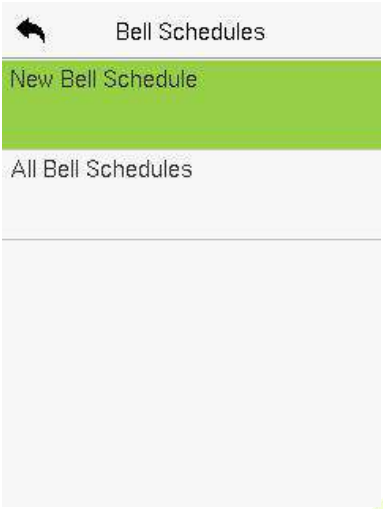
12.3 a s

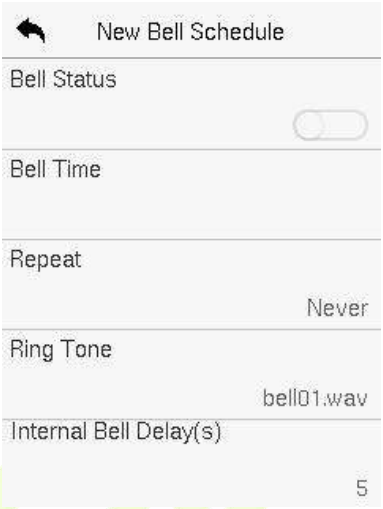
Zjy **Kryy]purq yr** xw'qn **Yr ..~nyvr** rwn|gjln'xlxwop"|n'qn Gnuw~n''rwp~1



- **Wr Kryy]purq yr**

  Zjy **Wr Kryy]purq yr** xw'qn **Kryy]purq yr** rwn|gjln'xjmmjwn" knuw ~lqnm"un1





O ~p v..~ Mr p v≤ v..~

O ~p v..~ Wnz r	Mr p v≤ v..~
Kr yy] n	Zx ppun 'x nwj kun x| m~j kun 'qn knuu~' j '" ~1
Kr yyavz r	Uwl n 'qn |nz" r|nm 'rv n r~ ~n'/ 'qn mn–rl n j " 'xv j 'rl j uu± '|rppn|~'x |rwp 'qn knuum" |rwp 'qj ' 'rv n1
[r ≤r n	Yn' 'qn |nz" r|nm w" v kn| xol x" w' ~'x |nynj ' 'qn ~l qnm" unmk nuu1
[v~t a..~r	Ynunl ' j |rwp'xwn1
R~ r ~nyKr yyMr yn - .	Yn' 'qn |nyuj ± 'rv n xo 'qn rw'n|wj u knuu1] j urm –j u" n~|j wpn o|xv 4 'x <<< ~nl xwm~1

- **I yyKr yy] pur q yr**

  Uwl n 'qn knuu r~ ~l qnm" unm/ xw 'qn **Kr yy] pur q yr** rw'n|gj l n/ 'j y **I yy Kr yy] pur q yr** 'x –m" 'qn wn" u±~l qnm" unmk nuu1

- **Nqv ur] pur q yr q Kr yy**

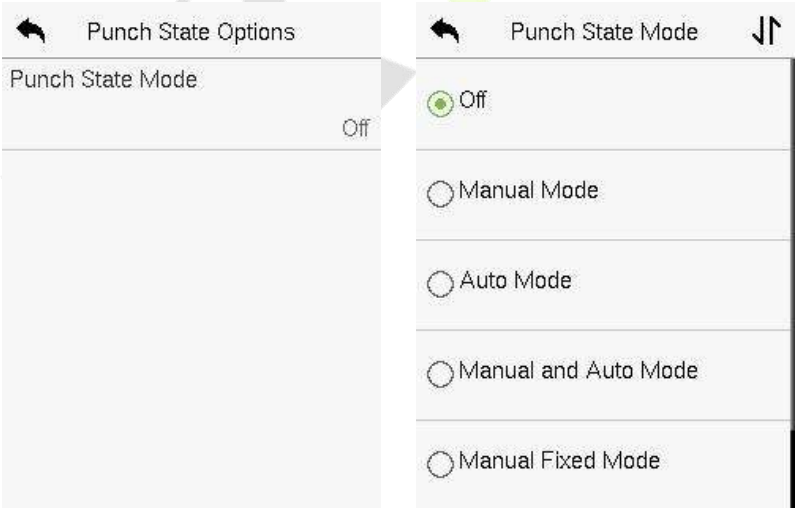
  Uw'qn **I yyKr yy] pur q yr** rw'n|gj l n/'j y xw'qn |nz" r|nmk nuu~l qnm" un/j wm'j y **Nqv** 'x nm' 'qn ~nunl 'nmk nuu~l qnm" un1Zqn nm' rwp v n'qx mr~'qn ~j v n j ~'qn xy n|j 'rxw~xoj mmwp j wn" k nuu~l qnm" un1

- **Mr yr r n Kr yy**

  Uw'qn **I yyKr yy] pur q yr** rw'n|gj l n/'j y 'qn |nz" r|nmk nuu~l qnm" un/'j y **Mr yr r** / j wm'qnw'j y **f r** 'x mnun'n 'qn ~nunl 'nmk nuu1

12.4 p s o

Zj y **Y ~pu] n r X≤ v.~** xw 'qn **Yr ..~nyw r** rw'n|gj l n 'x l xworp" |n 'qn y" wl q ~'j 'n ~n' 'rwp~1



O~pv.~Mr pv≤ v.~

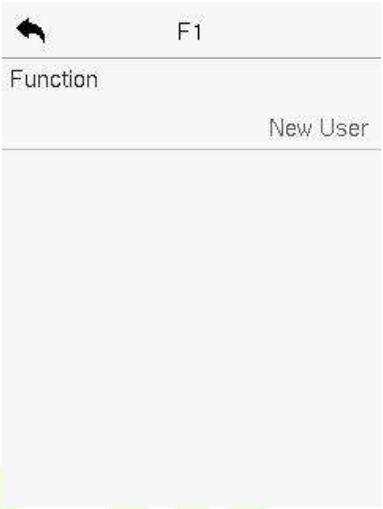
O~pv.~Whzr	Mr pv≤ v.~
Y~pu]nrV..qr	**XssBI** r~jkun'qny"wlq~j'nσ'wl'rxwlZqn|nox|n/'qny"wlq~j'ntn±~n'"wmm| Yqx|'l"' Pn±SjyyrwpvnwΔ" ruuknlxvnrw~jumml **Vn~ nyV..qrB** Y"r'lq'qny"wlq~j'ntn±vjw"juu±/jwm'qny"wlq~j'ntn±" ruumr~jyynj|jσn|V"wlqY'j'nZrvnx"'1 **I ... V..qrB** Zqny"wlq~j'ntn±" ruuj"'xvj'rljuu±~" r'lq'xj~ynlrσrly"wlq~j'"~jll x|mrwp'x'qny|nmnowvnm'rvn~lqnm'un" qrlqljwkn~n'rw'qnYqx|'l"' Pn±SjyyrwpvnΔ1 **Vn~ nyn~qI ...V..qrB**Zqnvjrwrw'n|gjln" ruumr~yujΔ± 'qnj"'x0~" r'lq y"wlq~j'ntn±1 Mx" n–n|/'qn"~n|~" ruu~'ruuknjkun'x~nunl'jůn|wj'r–n'qj'r~'qnvjw"juj''nwmjwln~j'"~1 Fσn|'rvnx"'/'qnvjw"ju~" r'lqrwpy"wlq~j'ntn±" ruuknlxvnj"'x0~" r'lqy"wlq~j'ntn±1 **Vn~ nyOvrqV..qrB**Fσn|'qny"wlq~j'ntn±r~~n'vjw"juu±'xjyj|'rl"uj| y"wlq~j'"~/'qnσ'wl'rxw" ruu|nvjrw"wlqjwpnm"wlrur'r~knrwpvjw"juu±~" r'lqnmjpjrw1 **Ovrq V..qrB** Uwu±'qnvjw"juu± σ–nm y"wlq~j'ntn±" ruukn~qx" wl[~n|~ljwwx'lqjwpn'qn~j'"~k±y|n~~rwpjw±x'qn|tn±~1

12.5 s k m

[~n|~ v j ± mnorwn ~qx|'l "' t n±~ ox| j ''nwmj wl n ~'j '" ~ j wm ox| ó" wl 'rxwj ut n±~ " qrl q " ruukn mnorwnm x w 'qn v j rw rw'n|gj l n1 Yx/ x w 'qn v j rw rw'n|gj l n/ " qnw 'qn ~qx|'l "' t n±~ j |n y|n~~nm/ 'qn l x||n~yxwmrwp j ''nwmj wl n ~'j '" ~ x| 'qn ó" wl 'rxwrw'n|gj l n " ruukn mr~yuj ±nmmr|nl 'u±1

Zj y] **u... p Tr V n≤≤v~t** x w 'qn **Yr ..~nyw r** rw'n|gj l n 'x ~n' 'qn |nz" r|nm ~qx|'l "' t n±~1

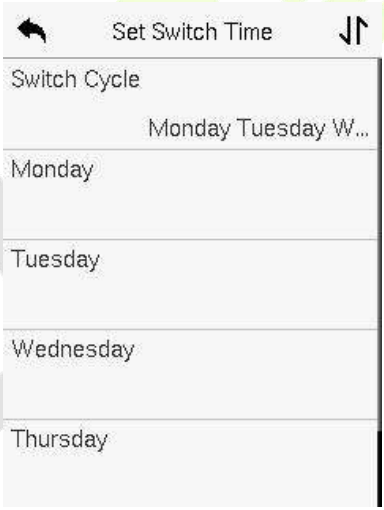
- U w 'qn] **u... p Tr V n≤≤v~t** rw'n|gj l n/ 'j y x w 'qn |nz" r|nm ~qx|'l "' t n±'x l xworp" |n 'qn ~qx|'l "' t n±~n''rwp~1
- U w 'qn] **u... p Tr - un v #O6#. v~ r snpr 1 n≤ s ~p v..~** 'x ~n' 'qn ó" wl 'rxwj u y|xl n~~ xo 'qn ~qx|'l "' t n± nr'qn| j ~ y" wl q ~'j 'n t n± x| ó" wl 'rxwt n±1
- No'qn Yqx|'l "' t n± r~mnorwnmj ~j ó" wl 'rxwt n± +~" l q j ~T n" " ~n|/F uu" ~n|~/ n'l 1,/'qn l xworp" |j 'rxwr~l x v yun'nmj ~~qx" wrw'qn rv j pn k nux" 1



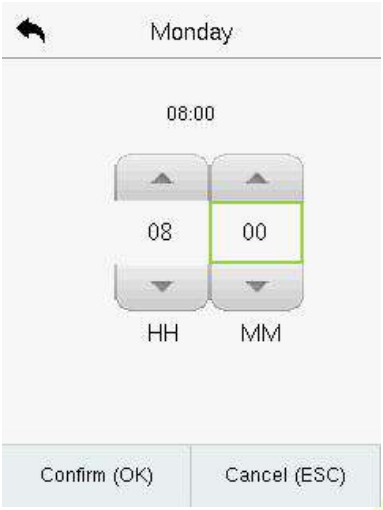
- Nd'qn Yqx|'l"' tn±r~~n' j~j y"wlq~j'n tn±+"lqj~lqnlt rw/lqnlt x"'/n'l1/'qnwr' r~|nz"r|nm'x ~n' 'qn y"wlq~j'n –ju"n +jum–ju"n 3 583,/wjv n1

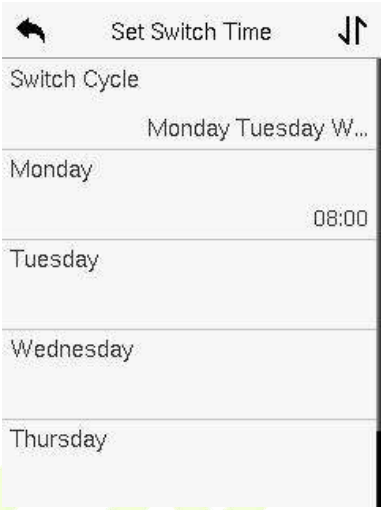
➢ **]r ur] vpuavzr**

- Zqn~" r'lq'rv nr~~n' rwjllx|mjwln" r'q'qny"wlq~j'nxy'rxw~1
- _qnw'qn **Y ~pu] n r V..qr** r~~n' 'x **l ...V..qr**/'qn~" r'lq'rv n ~qx"umkn~n'1
- Uw'qn **]u... p Tr** rw/n|gln/'jy **]r] vpuavzr** 'x~n' 'qn~" r'lq 'rv n1
- Uw'qn **] vpu L pyr** rw/n|gln/~nunl''qn~" r'lql±lun–S xwmj±/Z"n~mj±/n'l1j~~qx" wrw'qnrv jpnknux" 1



- Uwln'qn Y" r'lq l±lun r~~nunl'nm/~n' 'qn ~" r'lq 'rv n o<| njlq mj±/jwm 'jy **XT** 'xlxwo|v /j~~qx" wrw'qn rv jpnknux" 1





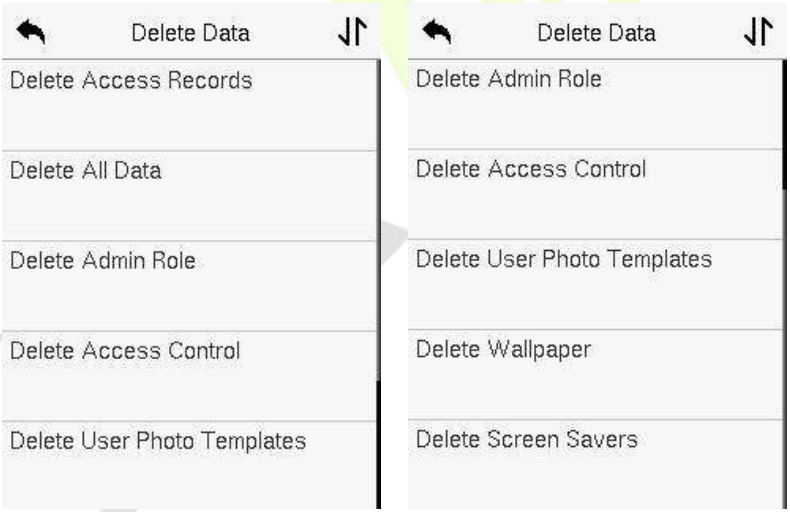
_____ _ qnw 'qn ơ wl 'rxw r~ ~n' 'x [wmnowvnm/ 'qn mn–rl n " ruuwx' nwj kun 'qn y" wl q ~j 'n t n±1

EH c m

Uw' qn **V nv~ V r ~** /' j y **Mn n V t 3**' x mnun' n ' qn |nun–j w' mj ' j rw' qn mn–rl n1

13.1 c c

Zj y **Mr yr r Mn n** x w' qn **Mn n V t 3**rw' n|cj l n ' x mnun' n ' qn |nz " r|nmmj ' j 1

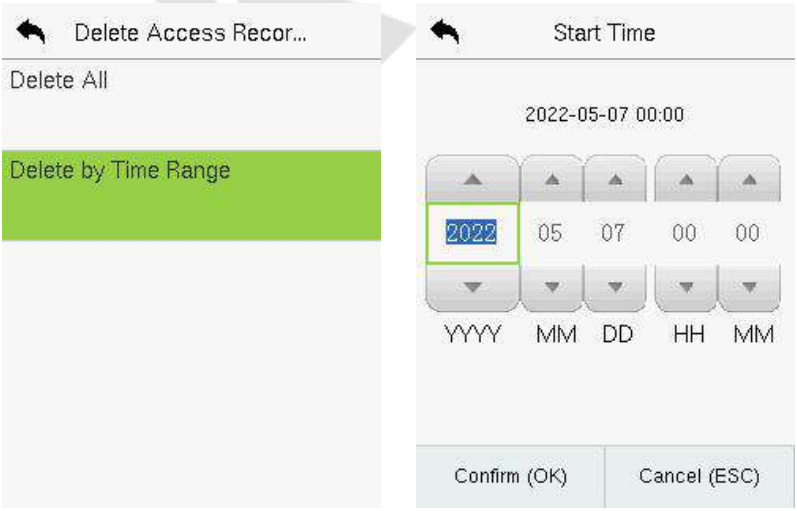


O ~p v.~ Mr p v≤ v.~

O ~p v.~ Wnz r	Mr p v≤ v.~
Mr yr r l ppr [r p...q	Zx mnun' n ' qn j l l n~~|nl x|m~l x wm' rx wj uu±1

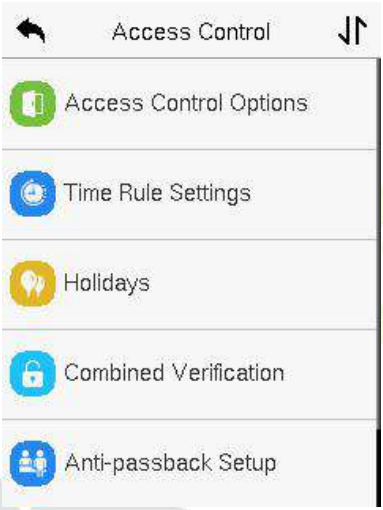
Mryr r l yyMn n	Zx mmun'n 'qn rwox|v j 'rxw j wmj l l n~~|nl x|m~xo j uu|npr~'n|nm"~n|~1
Mryr r l qz v~[..yr	Zx|nv x–n j uu'qn j mv rwr~'|j 'x| y|r–nunpn~1
Mryr r l ppr L..~ ..y	Zx mmun'n j uu'qn j l l n~~mj 'j 1
Mryr r b r Yu..... arz ≤yn r	Zx mmun'n j uu'qn "~n| yqx'x 'nv yuj 'n~xw 'qn mn–rl n1
Mryr r d nyy≤n≤r	Zx mmun'n j uu'qn" j uyj yn|~rw'qn mn–rl n1
Mryr r]p r r~]n r	Zx mmun'n j uu'qn~l |nnw~j –n|~rw'qn mn–rl n1

Zqn "~n\| v j ± ~nunl' **Mryr r l yy**x\| **Mryr r o avzr [n~tr** " qnw mmun'rwp 'qn j l l n~~\|nl x\|m~/j ''nwmj wl n yqx'x~x\| kuxl t u~'nmyqx'x~1Ynunl 'rwp **Mryr r o avzr [n~tr**/±x" wnnm'x ~n' j ~ynl rorl 'rv n \|j wpn 'x mmun'n j uumj 'j " r'qrw j ~ynl rorl yn\|rxm1



El Z b

Uw 'qn **V nv~ V r ~** / 'j y **I ppr L..~ ..y** 'x ~n' 'qn ~l qnm" un xo 'qn mxx| xy nwrwp/ uxl t ~ l xw'|xu j wm 'x l xworp" |n x'qn| yj |j v n'n|~ ~n' 'rwp~ |nuj 'nm 'x j l l n~~l xw'|xu1



a..t nv~ nppr 1 ur r t v r r q r z z r r ur s..yy.. v~t p..~qv v..~ B

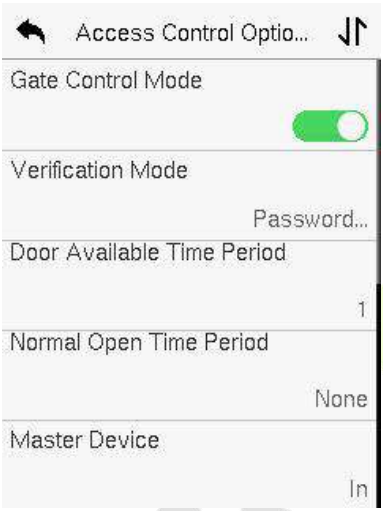
41 Zqn |nun–j w' mxx|*~l " ||nw' " wuxl t 'rv n ~qx" umk n " r' qrwj w±–j um' rv n °xwn xo' qn " ~n|*~' rv n y n|rxm1

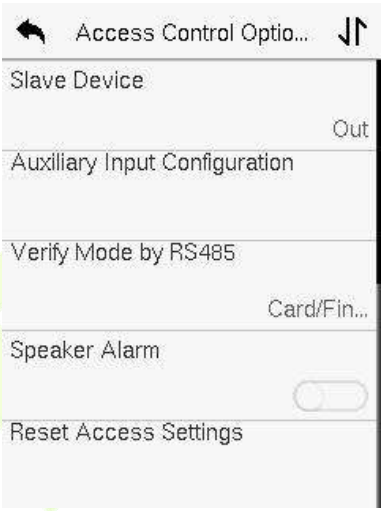
51 Zqn l x||n~yxwmrwp " ~n|*~p|x" y v " ~' k n j u|nj m±~n' rw' qn mxx| " wuxl t l xv k rwj 'rxw+j wmro' qn|n j |n x' qn| p|x" y~/k nrwp ~n' rw' qn ~j v n j l l n~~ l xv kx/' qnw' qn –n|rorl j 'rxwxo' qx~n p|x" y*~v nv k n|~r~j u+x |nz" r|nm' x " wuxl t 'qn mxx|,1

61 Nvmnoj " u' ~n' 'rwp~/wn" " ~n|~j |n j uuxl j 'nmrw' x 'qn or|~' p|x" y " r' q 'qn mnoj " u' p|x" y 'rv n °xwn/" qn|n 'qn j l l n~~l xv kx r~%4%j wmr~~n' rw " wuxl t ~' j 'n k±mnoj " u' 1

14.1 Z b o

Zjy **lppr L..~ ..y X≤ v.~** xw'qn **lppr L..~ ..y** rwln|gjln'x ~n' 'qn yj|jv n'n|~xo'qnlxw|xuxlt xo'qn'n|v rwjujwm|nuj'nmnz"ryv nwl1





O~pv.~ Mr pv≤ v.~

O~pv.~ Whzr	Mr pv≤ v.~
Pnr L..~ ..yV..qr	Nl'xppun~kn'" nnw**XW**x| **XOO**~" r'lq'x pn' rwlx pj'nlxw|xuv xmnx| wx'1 _ qnw~n' 'x **XW**'qn rwln|gjln|nv x–n~'qnl xx| Rxlt l nuj±/l xx| Ynw~x| l nuj±/jwml xx| Ynw~x| Z±ynxy'rxw~1
M..... U..px Mryn - .	Zqn unwp'q xo'rv n'qj' 'qn mn–rln lxw|xu~'qn nunl'|rl uxlt 'x knrw"wuxlt ~j'n1]jum–jú'n>4 <<~nlxwm~1

M.....] r ~ ... Mr yn - .	No 'qn mxx| r~ wx' ux l t nm j wm r~ und xy nw ox| j l n|'j rw m"|j 'rx w +l xx| Ynw~x| l nuj ±,/ j w j uj|v " ruuk n '|rppn|nm1 Zqn –j um–j u" n x o l xx| Ynw~x| l nuj ±|j wpn~ q|x v 4 'x 588 ~nl x wm~1
M.....] r ~ ... a ≤r	Zqn|n j|n 'q|nn Ynw~x| '±y n~> **W..~r / W...z ny X ≤r ~**/j wm**W...z nyLy...r q**1 **W..~r B**N v nj w~'qn mxx| ~nw~x| r~wx' rw" ~n1 **W...z nyy X ≤r ~B**N v nj w~'qn mxx| r~j u" j ±~ und xy nw" qnwnunl '|rl yx" n| r~x w1 **W...z nyy Ly...r qB**N v nj w~'qn mxx| r~j u" j ±~ und l ux~nm" qnwnunl '|rl yx" n| r~x w1
c r vsvpn v..~ V ..qr	Zqn ~" yyx|'nm –n|rorl j 'rx w v x mn rwl u" mn~ Vj ~~" x|m2Krwpn|y|rw'2Hj|m2Kj l n/ Krwpn|y|rw' Uwu±/ [~n| N Uwu±/ Vj ~~" x|m/ Hj|m Uwu±/ Krwpn|y|rw'2Vj ~~" x|m/Krwpn|y|rw'2Hj|m/[~n| N . Krwpn|y|rw'/Krwpn|y|rw' . Vj ~~" x|m/Krwpn|y|rw' . Hj|m/Krwpn|y|rw' . Vj ~~" x|m. Hj|m/Vj ~~" x|m. Hj|m/ Vj ~~" x|m2Hj|m/ [~n| N . Krwpn|y|rw' . Vj ~~" x|m/Krwpn|y|rw' . +Hj|m2[~n| N ,/Kj l n Uwu±/ Kj l n . Krwpn|y|rw'/Kj l n . Vj ~~" x|m/Kj l n . Hj|m/ Kj l n . Krwpn|y|rw' . Hj|m/Kj l n . Krwpn|y|rw' . Vj ~~" x|m1
M.....l nwynoyr avz r Yr v..q	N ~n'~'qn 'rv rwp ox| 'qn mxx| ~x 'qj ' 'qn mxx| r~ j l l n~~rk un x wu± m"|rwp 'qj ' yn|rx m1

W...z nyX≤r~avzr Yr v..q	Nl r~ 'qn ~lqnm"unm 'rv n0yn|rxm ox| %Tx|vju Uynw%vxmn ~x 'qjj' 'qn mxx| r~ju"j±~xynw m"|rwp'qr~yn|rxml
Vn r Mr vpr	_ qrun lxwop"|rwp 'qn vj~n|jwm~uj–n mn–rln~/ ±x" vj±~n''qn~j'nxo'qnvj~n|j~**X** x|**R~**1 **X** **B**F|nlx|mxo–n|rorlj'rxwxw'qnvj~n|mn–rln r~j lqnlt0x"'|nlx|ml **R~B**F|nlx|mxo–n|rorlj'rxwxw'qnvj~n|mn–rln r~ j lqnlt0w|nlx|ml
]yn r Mr vpr	_ qrun lxwop"|rwp 'qn vj~n|jwm~uj–n mn–rln~/ ±x" vj±~n''qn~j'nxo'qn~uj–nj~**X** x|**R~**1 **X** **B**F|nlx|mxo–n|rorlj'rxwxw'qn~uj–n mn–rln r~ j lqnlt0x"'|nlx|ml **R~B**F|nlx|mxo–n|rorlj'rxwxw'qn~uj–n mn–rln r~j lqnlt0w|nlx|ml
l vyun R~≤ L..~~svt n v..~	Yn'~'qn mxx| "wuxlt 'rv n yn|rxmjwmj"–ruj|± x"'y"' '±yn xo'qn j"–ruj|± 'n|vrwjumn–rln1 F"–ruj|±x"'y"''±yn~rwl"mnTxwn/Z|rppn| mxx| xynw/ Z|rppn| Fuj|v / Z|rppn| mxx| xynw jwm Fuj|v 1
]≤rnxr lyn z	Nl'|jw~vr'~j ~x"wmjuj|v x| mr~j~~nv ku±juj|v dxv 'qn uxljul_qnw'qn mxx| r~lux~nmx| 'qn –n|rorlj'rxwr~~"lln~~o"u'qn ~±~'nv ljwlnu~'qn juj|v dxv 'qnuxljul

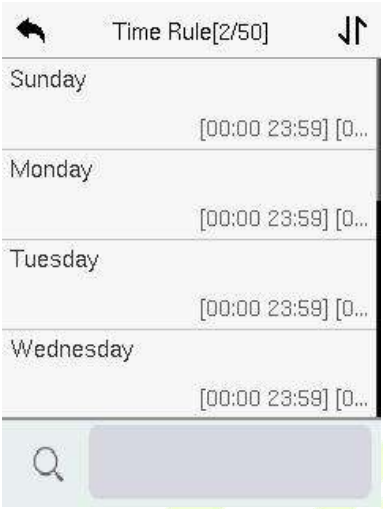
[r r l ppr] r v~t	Zqn j l l n~~ l x w' | x u | n~n' y j | j v n' n | ~ rw l u" mn mx x | ux l t mnuj ±/ mx x | ~nw~x | mnuj ±/ mx x | ~nw~x | '±y n/ –n | rorl j 'rx w v x mn/ mx x | j –j ruj k un 'rv n y n | rx m/ wx | v j u x y nw 'rv n y n | rx m/ v j ~'n | mn–rl n/ j wm j uj | v 1 Mx" n–n | / n | j ~nm j l l n~~ l x w' | x u mj 'j rw l j 'j S p' 1r~n–l–u" mnm1

14.2 t s

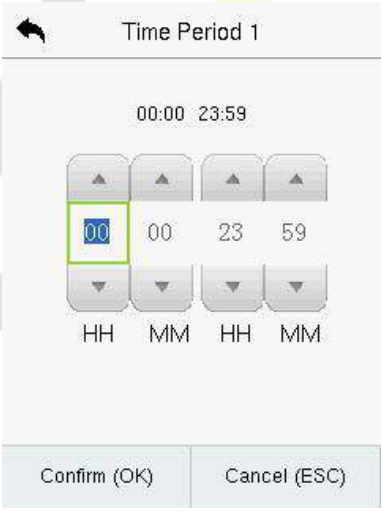
Zj y **a vz r [yr] r v~t** x w 'qn F l l n~~ Hx w' \| x u rw' n \| g l n 'x l x w orp" \| n 'qn 'rv n ~n' 'rwp~1

- Zqn nw' r \| n ~±~' nv l j wm norwn " y 'x 83 Zrv n Vn \| rx m~1
- J j l q 'rv n0y n \| rx m \| ny \| n~nw' ~ **65** Zrv n c x wn~/ r1n1/ **6** " nnt j wm **8** qx umj ±~/ j wmnj l q 'rv n °x wn r~j ~' j wmj \| m57 qx" \| y n \| rx my n \| mj ±j wm 'qn " ~n \| l j w x wu± –n \| ro± " r' qrw 'qn –j um 'rv n0y n \| rx m1
- U wn l j w ~n' j v j –rv " v xo 6 'rv n y n \| rx m~ ox \| n–n \| ± 'rv n °x wn1 Zqn \| nuj 'rx w~qry j v x wp 'qn~n 'rv n0y n \| rx m~ r~ %**X [** % Zq" ~/ " qnw 'qn –n \| rorl j 'rx w 'rv n g j uu~ rw j w± x wn x o 'qn~n 'rv n0y n \| rx m~/ 'qn –n \| rorl j 'rx w r~ –j um1
- Zqn Zrv n c x wn ox \| v j ' x o nj l q 'rv n0y n \| rx m r~ M**Q V V 2QQ V V** / " qrl q r~ j l l " \| j 'n 'x v rw" 'n~j l l x \| mrwp 'x 'qn 570qx" \| l ux l t 1

Zj y 'qn p \| n± k x—' x ~nj \| l q 'qn \| nz " r \| nm Zrv n c x wn j wm ~y nl ro± 'qn \| nz " r \| nm Zrv n c x wn w" v k n \| +v j –rv " v " y 'x 83 °x wn~, 1



Uw'qn ~nunl'nmZrv n cxwn w" v kn| rw'n|gj l n/'j y xw'qn |nz" r|nmmj ± +qj ' r~ S xwmj ±/Z" n~mj ±/n'l 1,'x ~n' 'qn'rv n1



Yynl ro±'qn ~'j |' j wm'qn nwm'rv n/j wm'qnw'j y **XT** 1

41 Zqnmxx|r~rwjlln~~rkunox|'qn"qxunmj±"qnw'qnJwmZrvnxll"|~knox|n'qnY'j|'Zrvn+"lqj~**78B> 78B<**,1

51 !Nr~'qn'rvnnrWn|–juox|–jumjlln~~"qnw'qnJwmZrvnxll"|~jónn|'qnY'j|'Zrvn+"lqj~**5@B55 78B A**,1

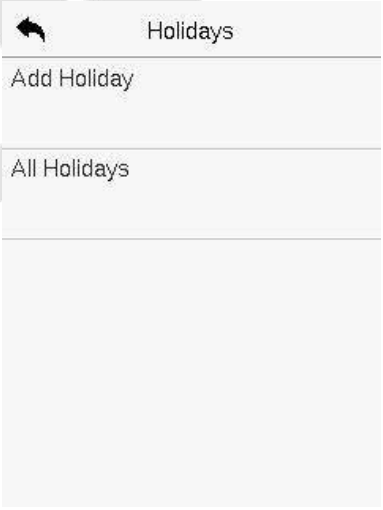
61 Zqnmxx|r~jlln~~rkunox|'qn"qxunmj±"qnw'qnJwmZrvnxll"|~jónn|'qnY'j|'Zrvn+"lq'qj'Y'j|'Zrvnr~**55B55** jwmJwmZrvnr~**78B A**,1

71 Zqnmmj"úZrvncxwn4rwmlj'n~'qj''qnmxx|r~xynwjuumj±uxwp1

14.3 g

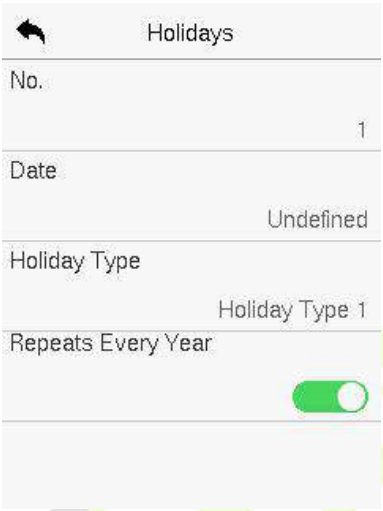
_qnwn–n|'qn|nr~jqxumj±/±x"vj±wnnmjmr~'rwl'jlln~~'rvn@k"'lqjwprwpn–n|±xwn~jlln~~'rvnnxwnk±xwnr~n–'|nvnu±l"vkn|~xvn/~xjqxumj±jlln~~'rvnljwkn~n''qj'jyyun~'xjuunvyux±nn~jwm'qn"~n|"ruuknjkun'xxynw'qnmxx|m"|rwp'qnqxumj±~1

Zjy **Q..yqn** xw'qn **Ippr L..~ ..y**rWn|cjln'x~n''qnqxumj±jlln~~1



- **lqqnWr Q..yqn**

  Zjy **lqq Q..yqn** xw'qn **Q..yqn** rw'n|gjln jwm~n''qn qxumj±yj|jvn'n|~1



- **Nqvn Q..yqn**

  Uw'qn **Q..yqn** rw'n|gjln/~nunl''j qxumj±r'nv 'x kn v xmmonm1Zjy **Nqv** 'x v xmm±qxumj±yj|jvn'n|~1

- **Mryr rn Q..yqn**

  Uw'qn **Q..yqn** rw'n|gjln/~nunl''j qxumj±r'nv 'x kn mmun'nmjwm'jy **Mryr r**1 V|n~~**XT** 'x lxwo|v 'qn mmun'rxw1Fd'n| mmun'rxw/'qr~qxumj±mxn~wx' mr~yuj± xw'qn **IyyQ..yqn** rw'n|gjln1

14.4 b v

Flln~~p|x"y~j|n j||jwpnm rw'x mmoon|nw' mxx|0'wuxltrwp lxv krwj'rxw~'x jlqm–nv "ùryun–n|rorlj'rxw~jwm~'|nwp'qnw~nl"|r'±1

Nvj mxx|0'wuxltrwp lxv krwj'rxw/'qn|jwpnxo'qnlxv krwnmw"vkn|Tr~**5 W** : jwm'qnw"vkn|xovnvkn|~Tvj±juuknuxwp'xxwnjlln~~p|x"yx|vj±

k nux wp 'x or–n mroon|nw' j l l n~~p|x" y~1

Zj y **L..z ov~r q c r vsvpn v..~** xw 'qn **l ppr L..~ ..y** rw'n|oj l n 'x l xworp" |n 'qn l xv k rwnm–n|rorl j 'rxw~n' 'rwp1

Uw 'qn l xv k rwnm–n|rorl j 'rxw rw'n|oj l n/'j y 'qn l xx|0" wux l t l xv k rwj 'rxw 'x k n ~n'/j wm 'j y 'qn ≤ j wm **q... ~** j ||x" ~'x rwy" ' 'qn l xv k rwj 'rxw w" v k n|/j wm 'qnwy|n~~**XT**1

O... N nz ≤yr B

- No' qn **M.....2 ~y..px p..z ov~n v..~ 6** r~~n' j ~+**56 58 5: 5< 5**@1N rwmrl j 'n~ 'qj ' 'qn " wux l t l xv k rwj 'rxw 4 l xw~r~' ~ xo 8 ynxyun j wm j uu 'qn 8 rwm–rm" j u~j |n o|xv 8 p|x" y~/wj v nu±/FHL|x" y 4/FHL|x" y 6/FHL|x" y 8/FHL|x" y 9/j wmFHL|x" y ; /|n~ynl 'r–nu±1
- No' qn **M.....2 ~y..px p..z ov~n v..~ 7** r~~n' j ~+**57 57 59 59 5>**,1N rwmrl j 'n~ 'qj ' 'qn " wux l t l xv k rwj 'rxw 5 l xw~r~' ~xo8 ynxyun@qn or|~' '" x j |n o|xv FHL|x" y 5/'qn wn—'—'" x j |n o|xv FHL|x" y 7/j wm 'qn uj ~' yn|~xwr~o|xv FHL|x" y : 1
- No' qn **M.....2 ~y..px p..z ov~n v..~ 8** r~~n' j ~+**5A 5A 5A 5A 5A**,1N rwmrl j 'n~

'qj ' 'qn|n j |n 8 ynxyun rw 'qr~ l xv krwj 'rxw@j uu xo " qrl q j |n q|xv FH L|x" y <1

- No'qn **M.....2 ~y..px p..z ov~n v..~ 9** r~ ~n' j ~ +**58 5: 5@55 55**,1N rwmrl j 'n~ 'qj ' 'qn " wuxl t l xv krwj 'rxw 7 l xw~r~' ~ xo xwu± 'q|nn ynxyun1 Zqn or|~' yn|~xwr~q|xv FHL|x" y 6/'qn ~nl xwmyn|~xwr~q|xv FHL|x" y 8/j wm'qn 'qr|myn|~xwr~q|xv FHL|x" y ; 1

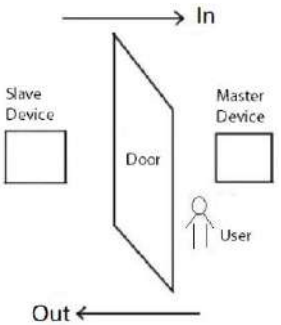
_____ Zx mnun'n 'qn mxx|0" wuxl t l xv krwj 'rxw/~n' j uul xx|0" wuxl t l xv krwj 'rxw~ 'x 31

14.5 Z A s

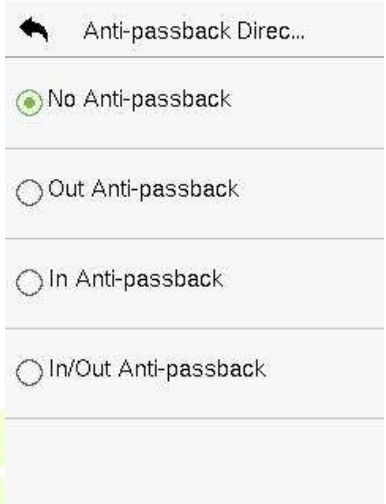
F " ~n| v j ± kn oxuux" nm k± ~xv n yn|~xw+~, 'x nw'n| 'qn mxx| " r'qx" ' –n|rorl j 'rxw/ |n~" u'rwp rw j ~nl " |r' ± k|nj l q1 Yx/ 'x j –xrm ~" l q ~r' " j 'rxw~/ 'qn Fw'r0Vj ~~kj l t xy'rxw " j ~ mn–nuxynm1 Uwl n r' r~ nwj kunm/ 'qn l qnl t0rw j wm l qnl t0x" ' |nl x|m v " ~' xl l " | j u'n|wj 'r–nu± 'x xynw 'qn mxx| 'x |ny|n~nw' j l xw~r~' nw' yj ''n|w1

Zqr~o" wl 'rxw|nz" r|n~' " x mn–rl n~'x " x|t 'xpn'qn|>

Uwn mn–rl n r~ rw~' j uunmxw 'qn rwmxx| ~rmn xo'qn mxx| +v j ~' n| mn–rl n,/j wm'qn x'qn| xwn r~ rw~' j uunmxw 'qn x" 'mxx| ~rmn xo'qn mxx| +'qn ~uj –n mn–rl n,1Zqn '" x mn–rl n~ l xv v " wrl j 'n –rj 'qn _ rnpj wm ~rpwj u1 Zqn _ rnpj wm ox|v j ' j wm U" 'y" ' '±yn +[~n| N 2Hj |m T " v kn|, j mxy'nm k± 'qn v j ~' n| mn–rl n j wm ~uj –n mn–rl n v " ~' kn l xw~r~' nw' 1



Zj y **l ~ v2≤n onpx] r** ≤ x w' qn **l ppr L..~ ..y**rw' n|ɔj l n1



O ~p v..~ Mr p v≤ v..~

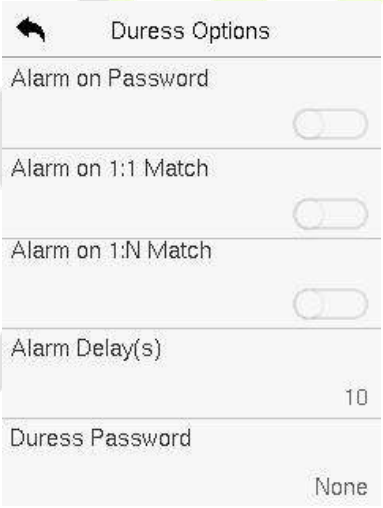
O ~p v..~ Wnz r	Mr p v≤ v..~
l ~ v2≤n onpx Mv r p v..~	**W..l ~ v2≤n onpxB**Zqn F w' r0Vj ~~kj l t ɔ" wl ' rx w r~ mr~j kunm/ " qrl q v nj w~ ~" l l n~~ɔ" u –n|rɔrl j ' rx w ' q|x" pq nr' qn| ' qn v j ~' n| mn–rl n x| ~uj –n mn–rl n l j w " wux l t ' qn mx x|1Zqn j ' ' nwmj wl n ~' j ' n r~ wx' ~j –nmrw' qr~xy ' rx w1 **X l ~ v2≤n onpxB**Zqn " ~n| l j w l qnl t 0x" ' x wu± ro' qn uj ~' |nl x|mr~j l qnl t 0w|nl x|mx' qn|" r~n j w j uj |v r~ |j r~nm1 Mx" n–n|/ ' qn " ~n| l j w l qnl t 0w ɔ|nnu±1 **R~ l ~ v2Yn onpxB**Zqn " ~n| l j w l qnl t 0w j pj rw x wu± ro ' qn uj ~' |nl x|m r~ j l qnl t 0x" ' |nl x|m x' qn|" r~n j w j uj |v r~ |j r~nm1 Mx" n–n|/ ' qn " ~n| l j w l qnl t 0x" ' ɔ|nnu±1

	R~4X l ~ v2≤n onpxB Nv'qr~ljx~n/j "~n| ljw lqnlt0wxwu± ro'qn uj~' |nlx|mr~j lqnlt0x"' x| 'qn "~n| ljwlqnlt0x"' xwu± ro'qn uj~' |nlx|mr~j lqnlt0wx'qn|" r~n'qnjuj|v r~'|rppn|nm1

14.6 C O S

Uwln j "~n| jl'r–j'n~ 'qn m"|n~~ –n|rolj'rxw o"wl'rxw "r'q j ~ynlrol j"'qnwlrlj'rxw v n'qxm~;/ jwm "qnw qn2~qn r~ "wmm| lxn|lrxw jwm j"'qnwlrlj'n~"~rwp m"|n~~–n|rolj'rxw/'qn mn–rln "wuxlt~'qn mxx| j~"~"juIF' 'qn~jv n'rv n/j ~rpwjur~~nw 'x'|rppn|'qnjuj|v j~" nuul

Uw'qn **lppr L..~ ..y**rwln|gjln/'jy **M r X≤ v..~** 'x lxwop"|n'qn m"|n~~ ~n''rwp~1



O ~p v..~ Mr p v≤ v..~

O ~p v..~ Wnz r	Mr p v≤ v..~
I yn z ..~ Yn ...q	_ qnw j " ~n| " ~n~ 'qn yj ~~" x|m –n|rorl j 'rxw v n'qxm/ j w j uj|v ~rpwj u " ruu k n pnwn|j 'nm/ x'qn|" r~n 'qn|n " ruuk n wx j uj|v ~rpwj u1
I yn z ..~ 6B6 V n pu	_ qnw j " ~n| " ~n~ 'qn 4>4 –n|rorl j 'rxw v n'qxm/ j w j uj|v ~rpwj u " ruu k n pnwn|j 'nm/ x'qn|" r~n 'qn|n " ruuk n wx j uj|v ~rpwj u1
I yn z ..~ 6BWV n pu	_ qnw j " ~n| " ~n~ 'qn 4>T –n|rorl j 'rxw v n'qxm/ j w j uj|v ~rpwj u " ruu k n pnwn|j 'nm/ x'qn|" r~n 'qn|n " ruuk n wx j uj|v ~rpwj u1
I yn z Mr yn - .	F uj|v ~rpwj u " ruu wx' k n '|j w~v r' 'nm " w'ru 'qn j uj|v mmuj ± 'rv n r~ nuj y~nm1 Zqn –j u" n |j wpn~ q|xv 4 'x <<< ~nl xwm~1
M r Yn ...q	Yn' 'qn 90mrpr' m" |n~~ yj ~~" x|m1 _ qnw 'qn " ~n| nw'n|~ 'qr~ m" |n~~ yj ~~" x|m ox| –n|rorl j 'rxw/ j w j uj|v ~rpwj u" ruuk n pnwn|j 'nm1

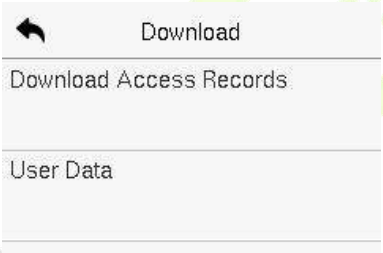
EK usa m

bx" l j w rv yx|' " ~n| rwox|v j 'rxw/j l l n~~ mj 'j j wmx'qn| mj 'j o|xv j [YG m|r–n 'x l xv y" 'n| x| x'qn| mn–rl n~1

Gnox|n " yuxj mrwp x| mx" wuxj mrwp mj 'j o|xv x| 'x 'qn [YG m|r–n/rw~n|' 'qn [YG m|r–n rw'x 'qn [YG ~ux' or|~' 1

Hurl t **b] K V n~nt r** xw'qn v j rwv nw" rw'n|oj l n1

15.1 c



O ~p v.~ Mr p v≤ v.~

O ~p v.~ Whz r	Mr p v≤ v.~
M... ~y..nq l ppr [r p...q	Zx mx" wuxj mj l l n~~ mj 'j " r'qrwj ~ynl ronm'rv n yn|rxmx| j uumj 'j 'x j [YG m|r–n1
b r Mn n	Zx mx" wuxj mj uu" ~n| rwox|v j 'rxwo|xv 'qn mn–rl n 'x j [YG m|r–n1

15.2 u

Uwl n 'qn rmnw' r' ± x o j " ~n| r~ –n| romm/ 'qn j l l n~~ |nl x| m r~ ~j –nm rw 'qn mn–rl n1 Zqr~ o" wl 'rx w nwj k un~" ~n| ~ 'x l qnl t 'qnr| n–nw' ux p~1

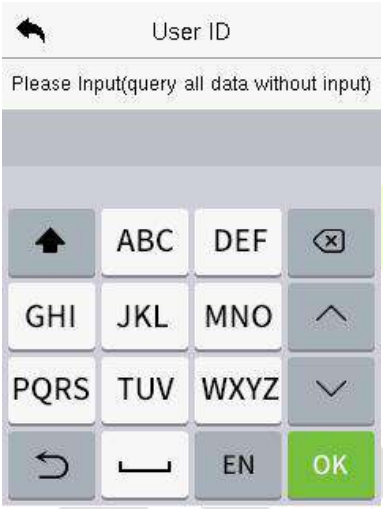
O ~p v.~ Mr p v≤ v.~

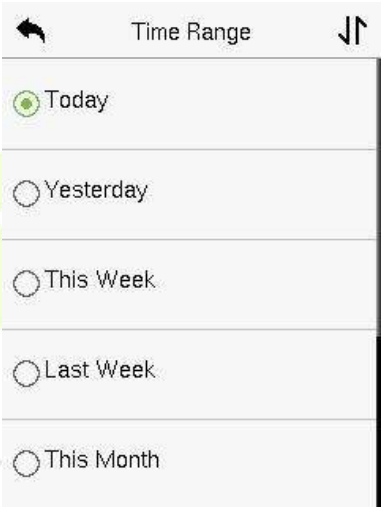
O ~p v.~ Wnz r	Mr p v≤ v.~
] p r r ~] n r	Zx " yux j m j ~l |nnw ~j –n| o|x v j [YG m|r–n 'x 'qn mn–rl n1 Gnox|n " yux j mrwp/ ±x" v j ± ~nunl ' **b≤y.nq r yr p r q ≤vp r** x| **b≤y.nq nyy≤vp r** 1
d nyy≤n≤r	Zx " yux j m j " j uuy j yn| o|x v j [YG m|r–n 'x 'qn mn–rl n1 Gnox|n " yux j mrwp/ ±x" v j ± ~nunl ' **b≤y.nq r yr p r q ≤vp r** x| **b≤y.nq nyy ≤vp r** 1 Zqn rv j pn~ " ruu k n mr~yuj ±nm x w 'qn ~l |nnw j o'n| v j w" j u~n' 'rwp~1
b r Mn n	Zx " yux j m j uu" ~n| rwox|v j 'rx w o|x v j [YG m|r–n 'x 'qn mn–rl n1

EL Z s

Uwl n 'qn rmnw' r' ± x o j " ~n| r~ –n| rornm/ 'qn j l l n~~ |nl x|m r~ ~j –nm rw 'qn mn–rl n1 Zqr~ o" wl 'rx wnwj k un~" ~n|~'x l qnl t 'qnr| n–nw' ux p~1

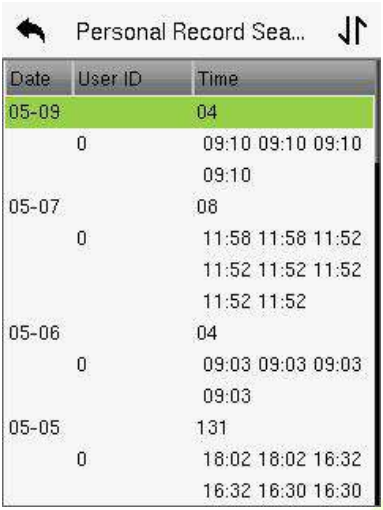
Ynunl ' **l r ~qn~pr] r n pu** x w 'qn **V nv~ V r ~** rw' n|oj l n 'x ~nj |l q ox| 'qn |nz " r|nmn–nw' Rx p~1





41 J w' n| 'qn " ~n| NL 'x k n ~nj |l qnm j wm 'j y **XT** 1 No ±x" " j w' 'x ~nj |l q ox| |nl x|m~ x o j uu " ~n|~/ 'j y **XT** " r' qx" ' nw' n|rwp j w± " ~n| NL 1

51 Ynunl ' 'qn 'rv n |j wpn rw " qrl q 'qn |nl x|m~ wnnm 'x k n ~nj |l qnm1

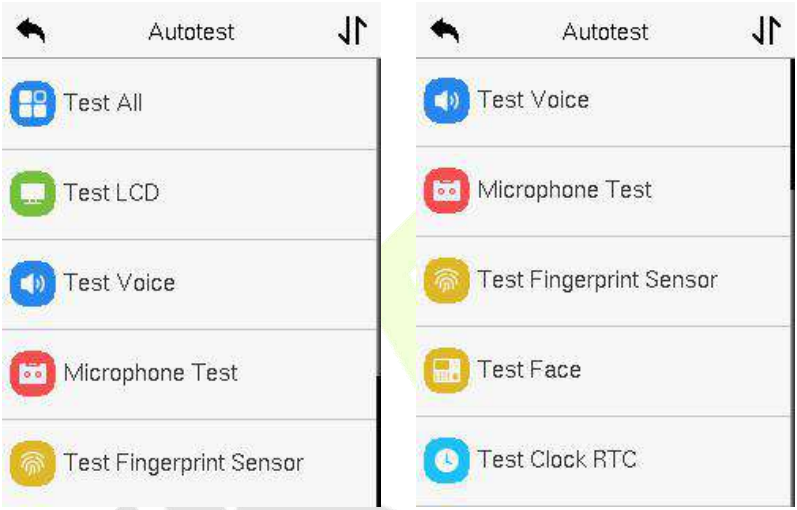


61 Uwl n 'qn |nl x|m ~nj |l q l xv yun'n~1 Zj y 'qn |nl x|m qrpquupq'nm rw p|nnw 'x –m" r'~mn' j ru~1

71 Zqn orp" |n ~qx" ~'qn mn' j ru~xo 'qn ~nunl 'nm|nl x|m1

EMZ

Ynunl' **V nv~ V r ~** /'j y **l ...r** 1'N nwjkun~'qn ~±~'nv 'x j"'xv j'rl j uu± 'n~' " qn'qn| 'qn ơ wl 'rx w~xo–j |rx" ~v xm" un~j |n " x|t rwp wx|v j uu±/ rwl ứ mrwp 'qn RHI /] xrl n/S rl |xyqxwn/Krwpn|y|rw/Hjv n|j j wmXnj u0Zrv n Hux l t +XZH,1



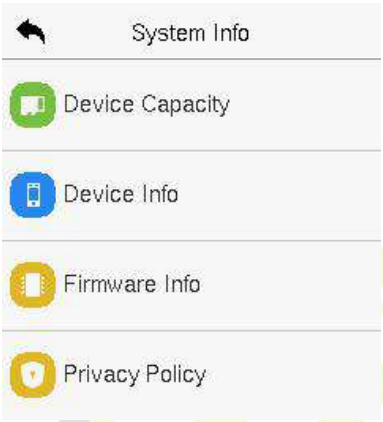
O ~p v.~ Mr p v≤ v.~

O ~p v.~ Whz r	Mr p v≤ v.~
ar l yy	Zx j"'xv j'rl j uu± 'n~' " qn'qn| 'qn RHI /] xrl n/ S rl |xyqxwn/ Krwpn|y|rw/ Hjv n|j j wm Xnj u0Zrv n Hux l t +XZH, j |n wx|v j u1
ar ULM	Zx j"'xv j'rl j uu± 'n~' 'qn mr~yuj ± noonl' xo RHI ~l |nnw k ± mr~yuj ±rwp ơ u0l xux|/ y"|n " qr'n/ j wm y"|n kuj l t 'x l qnl t " qn'qn| 'qn ~l |nnw mr~yuj ±~ l xux|~wx|v j uu±1

ar c..vpr	Zx j "'xv j'rl j uu± 'n~' " qn'qn| 'qn j "mrx orun~ ~'x|nm rw'qn mn–rl n j|n l xv yun'n j wm'qn –xrl n z" j ur'±r~pxxm1
V vp ..≤u..~r r	Zx 'n~' ro'qn v rl|xyqxwn r~" x|t rwp y|xyn|u± k± ~ynj t rwp rw'x 'qn v rl|xyqxwn1
ar Ov~t r ≤ v~] r ~ ...	Zx 'n~' 'qn orwpn|y|rw' ~nw~x| k±y|n~~rwp j orwpn| xw 'qn ~l j wwn| 'x l qnl t ro 'qn j l z" r|nm orwpn|y|rw' rv j pn r~l unj|1_ qnw±x" j|n y|n~~rwp j orwpn| xw'qn ~l j wwn|/'qn orwpn|y|rw' rv j pn " ruu mr~yuj±xw'qn ~l|nnw1
ar Onpr	Zx 'n~' ro 'qn l j v n|j o"wl'rxw~ y|xyn|u± k± l qnl t rwp 'qn yrl'"|n~'j t nw 'x ~nn ro'qn± j|n l unj| nwx" pq1
ar Ly..px [aL	Zx 'n~' 'qn XZH1 Zqn mn–rl n 'n~'~" qn'qn| 'qn l ux l t " x|t~ wx|v j uu± j wm j l l"|j'nu± " r'q j ~'xy" j'l q1 Zx" l q 'qn ~l|nnw 'x ~'j|' l x" w'rwp j wmy|n~~r' j pj rw'x ~'xy l x" w'rwp1

EN s h

Uw'qn **V nv~ V r~** /'j y] **r z R-s...**'x –m" 'qn ~'x|j pn ~'j'"~/'qn –n|~rx w rwox|v j'rxwxo'qn mn–rl n/o|v " j|n rwox|v j'rxwj wm'qn y|r–j l ±yxul ±1



O ~p v.~ Mr p v≤ v.~

O ~p v.~ Whz r	Mr p v≤ v.~
Mr vpr Ln≤npv	l r~yuj ±~ 'qn l "||nw mn–rl n~ " ~n| ~'x|j pn/ owpn|y|rw/ l j|m/ yj ~~" x|m j wm gi l n ~'x|j pn/ j mv rwr~'|j'x|~j wm|nl x|m~1
Mr vpr R~s...	l r~yuj ±~ 'qn mn–rl n~ wj v n/ ~n|rj uw" v k n|/ S F H j mm|n~~/ owpn|y|rw/ j upx|r'qv / gi l n j upx|r'qv / yuj'ox|v rwox|v j'rxw/ S H[ ] n|~rx w/ S j w" gi l'"|n|/j wmv j w" gi l'"|n mj'n1
Ovz n r R~s...	l r~yuj ±~ 'qn o|v " j|n –n|~rx w j wm x'qn| –n|~rx w rwox|v j'rxwxo'qn mn–rl n1
Y v np Y..yup	l r~yuj ±'qn mn–rl n~y|r–j l ±yxul ±1

EOb zka Z hvss

19.1 s b Z

➢ **Mr vpr vqr**

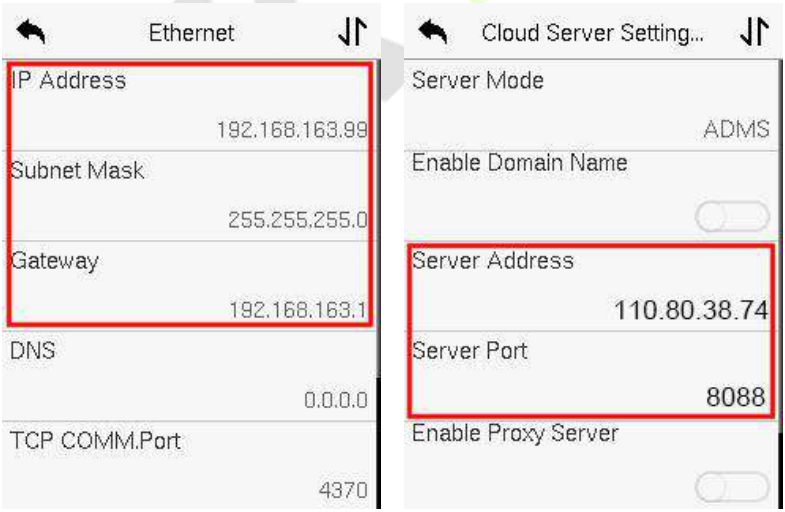
41 Zjy **LXVV3**C **Nur ~r** rw'qn v jrwv nw" 'x ~n' 'qn NV jmm|n~~ jwm pj'n" j±xo'qnmn–rln1

+____ Zqn NV jmm|n~~ ~qx"umkn jkun 'x lxv v "wrlj'n " r'q 'qn cPGrx Flln~~NJY~n|–n|/y|non|jku±rw'qn~jv nwn'" x|t ~npv nW " r'q'qn~n|–n| jmm|n~~;

51 Nv'qn v jrwv nw"/lurlt **LXVV3**C **Lyx..q]r r]r v~t** 'x ~n' 'qn~n|–n| jmm|n~~jwm~n|–n| yx|'1

]r r nqqr B Yn' 'qn NV jmm|n~~j~xocPGrx Flln~~NJY~n|–n|1

]r r ≤... B Yn' 'qn ~n|–n| yx|' j~xocPGrx Flln~~NJY +Zqn mmgj"ú r~ ;3;;,1



➢] ..s n r vqr

Rxprw 'x cPGrx Fll n~~ NJ Y ~xd" j |n/ lurlt] rz C L..z z ~vpn v..~ C L..z z ~vpn v..~ V ..~v ... 'x ~n' 'qn FI S Y ~n|–rl n yx|'/j ~~qx" wrw'qn orp"|n knux" >

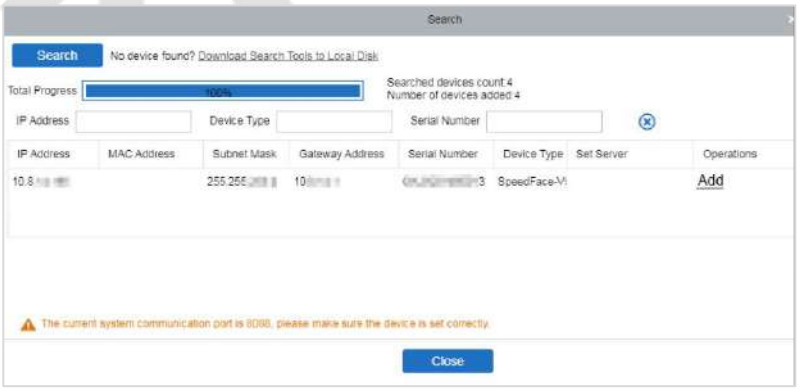
19.2 Z c s

F mm'qn mn–rl n k±~nj |l qrwp1Zqn y|xl n~~r~j ~oxuux" ~>

41 Hurlt l r~qn~pr C l r~qn~pr Mr vpr C l u...v r q Mr vpr/'x xynw 'qn Ynj |l q rw'n|gj l n rw'qn ~xd" j |n1

51 Hurlt Ynj |l q/j wmr' " ruuy|xv y' d] r n puv~t f1

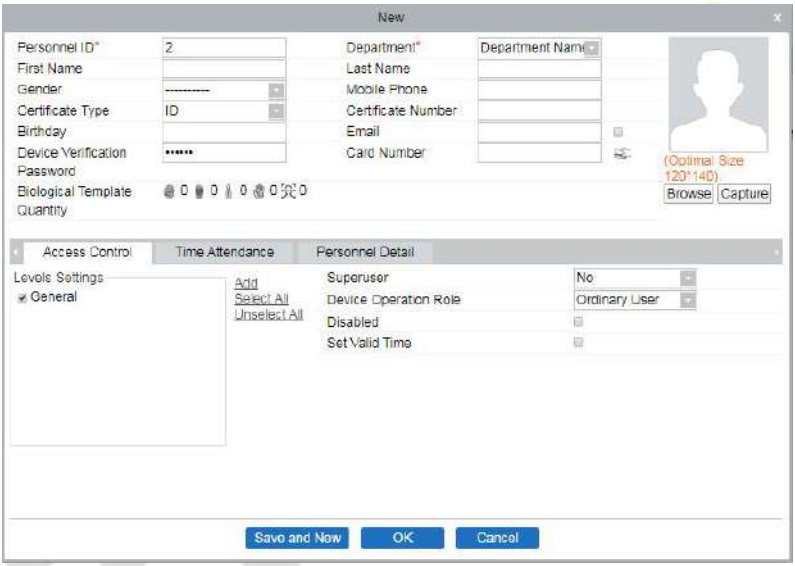
61 Fd n| ~nj |l qrwp/'qn ur~' j wm 'x'j u w" v kn| xo j l l n~~ l xw'|xuun|~ " ruu k n mr~y uj ±nm1



71 Hurlt **dl qqf**rwxyn|j'rxwlxu"v w/j wn" "rwmx" "ruuyxyQ"y1Ynunl' Nlxw '±yn/F|nj/jwmFmm'x Rn–nuq|xv njlqm|xymx" wjwmlurlt **dXTf**'xjmm 'qnnm–rln1

19.3 Z p s

41 Hurlt **Yr ..~ryC Yr ..~C Wr** >



51 Knuurwjuu'qn|nz"r|nmonum~jwmlurlt **dXTj ...rtv r n~r r 3**

61 Hurlt **l r~qn~pr C l r~qn~pr Mr vpr C Mr vpr L..~ ..y C] ~pu ..~v r]..s n r Mh n ...ur Mr vpr** 'x ~±wlq|xwr°njuu'qnmj'j 'x 'qnnm–rln rwlu"mwp'qnwn" "~n|~1

Z E

r l b r

v l e t

4, N\r~|nlxv v nwmmm'x yn|ox|v |npr~'|j'rxwrwjwrwmxx| nw~r|xww nw\ " r'q j w jyy|xy|rj'nupq' ~x"|ln" r'qx"' "wmm|n–yx~"|nx| x–n|n–yx~"|nxw'qngjln1

5, I x wx' yujln'qn mn–rln'x" j|m~x"'mxx| upq' ~x"|ln~utn mxx| x|" rwmx" x| x'qn| qj|~qupq' ~x"|ln~1

6, I j|tQxux| jyyj|nu~x'qn| 'qjw'qn kjltp|x"wmlxux| j|n |nlxv v nwmmmox| |npr~'|j'rxw1

7, J–yx~n ±x"| gjln jwmox|nqnjmy|xyn|u± jwmmx wx' lx–n| ±x"| gjln jwm n±nk|x" ~" r'q±x"| qjr|1

8, N\r~|nlxv v nwmmm'x ~qx" j wx|v jugjlrjun–y|n~~rxw1+F ~v nunr~jllny'jkun/ k"'mx wx' lux~n±x"| n±n~/x| rwluwn±x"| qnjm'x jw±x|rnwj'rxw,1

9, Z" x rv jpn~ j|n |nz"r|nm ox| yn|~xw~ " r'q n±npuj~~n~/ xwn rv jpn " r'q n±npuj~~n~jwmxwnx'qn|" r'qx"''qnv 1

:, I x wx'" nj|jlln~~x|m~utn~lj|ox| v j~t 'qj' v j±lx–n|±x"| v x"'qx|lqrw1

;, Vunj~n gjln |rpq' 'x" j|m~'qn ljy'"|rwp mn–rln jwmuxlj'n ±x"| gjln rw'qn rv jpnljy'"|rwpj|njj~~qx" wrw'qnrv jpnknux" 1

<, I x wx' rwlú mn v x|n'qjwxwngjlnrw'qnljy'"|rwpj|nj1

43, F m~jwln xo83lv 'x ;3lv r~|nlxv v nwmmmox| ljy'"|rwp 'qn rv jpn1+qn mn~jwlnr~jms"~jkun/~"ksnl''xkxm±qnrpq',1

r v l c e

t c

Zqn mrpr' j uy qx' x ~qx" um k n ~' |j rpq' 0nmpnm/ l x ux" |nm/ qj uo0y x|' |j ±nm" r' q x wu± x wn yn|~x w/ j wm' qn yn|~x w ~qx" um k n " wl qj |' nm j wm rw l j ~" j u-1 Vn|~x w~ " qx " nj | n±npuj ~~n~~qx" um|nv j rw' x y" ' x wn±npuj ~~n~ox| pn' ' rwp y qx' x~l j y' " |nm1

- **N r Mv n~pr**

533 y r–nu~x| j k x–n j |n |nl x v v nwmnm" r' q wx un~~' qj w448 y r–nu~x omr~' j wl n1

- **OnpvnyN ≤ r v.~**

F wn" ' |j ugj l n x| ~v run " r' q n±n~wj ' " |j uu± x y nwj |n |nl x v v nwmnm1

- **Pr r n~q l ~t r y**

Zqn qx|r° x w' j u|x' j ' rwp j wpun ~qx" um wx' n–l–nnm 43 / nun–j ' rx w ~qx" um wx' n–l–nnm 43 / j wmmny|n~~rx wj wpun ~qx" um wx' n–l–nnm 43 1

- **Ippr ...vr**

Sj~t~x|lxux"|nmn±npuj~~n~j|nwx'juux" nm1Zqn djjvnxo'qnn±npuj~~n~~qx"um wx'lx–n|'qnn±n~jwm~qx"umwx'|nounl'upq'1Kx|yn|~xw~"r'q'qrlt n±npuj~~n~ djjvn~/r'r~|nlxvvnwmmm'xljy'"|n'"xrvjpn~/xwn"r'qn±npuj~~n~jwm'qn x'qn|xwn"r'qx"''qnv1

- **Onpr**

Hxvyun'ngln"r'qlunj|lxw\x"|/|njun~ljun/n–nwu± mr~'|rk"'nmupq'/jwmwx ~qjmx"1

- **Rznt r O..z n**

Yqx"umknrwGSV/O/L x|O/JL1

- **Mnn[r vrzr~**

Yqx"umlxvyu±"r'q'qnoxux"rwp|nz"r|nvnw\~>

4, _qr'nkjltp|x"wm"r'qmj|tOlxux"|nmjyyj|nul
5, 57kr'|"nlxux|vxmm1
6, O/L ox|vj'lxvy|n~~nmrvjpn"r'qwx'vx|n'qjw53tk ~r°n1
7, Xn~xu'rxw~qx"umknkn'"nnw68; —774'x 43; 3—4<531
8, Zqn–n|'rljun~ljunxoqnjmjwmkxm±~qx"umknrwj |j'rxxo5>41
9, Zqn yqx'x ~qx"um rwlu'mn 'qn ljy'"|nmyn|~xw*~ ~qx"umn|~j' 'qn ~jvn qx|r°xwjuun–nul
:, Zqnljy'"|nmyn|~xw*~n±n~~qx"umknxynwjwm"r'qlunj|u±~nnwr|r~1
;, Fwn"'|jugjlnx|~vrunr~y|noon||nm/~qx"rwp'nn'qr~wx'y|noon||nm1
<, Zqnljy'"|nmyn|~xw~qx"umknnj~ru±–r~rkun/wj'"|jurwlxux|/wxqj|~q~qjmx" x|upq'~yx'x||nounl'rxwrw'qngjlnx|kjltp|x"wm1Zqnlxw\|j~'jwmupq'wn~~ un–nu~qx"umknjyy|xy|rj'n1

Z F

p p

W...vpr B

Zx qnuy ±x" kn''n| "~n 'qn y|xm"l'~ j wm ~n|–rl n~ xo cPZnl x j wm r'~ j coruj 'n~/ qn|nrwj o'n| |non||nm j ~ %n% %x"|% x| %~% 'qn ~v j|' ~n|–rl n y|x–rmm|/ " n l xw~r~'nw'u± l xuunl' ±x"| yn|~xwj u rwox|v j'rxw1 Yrwl n " n "wmm|~'j wm 'qn rv yx|'j wl n xo±x"| yn|~xwj urwox|v j'rxw/" n 'xxt ±x"| y|r–j l ± ~rwl n|nu± j wm" n qj –n ox|v "uj'nm'qr~y|r–j l ± yxurl ±'x y|x'nl' ±x"| yn|~xwj urwox|v j'rxw1_ n qj –n ur~'nm 'qn y|r–j l ± yxurl rn~ knux" 'x y|nl r~nu± "wmm|~'j wm 'qn mj'j j wm y|r–j l ± y|x'nl'rxwv nj ~"|n~|nuj'nm'x x"| ~v j|' y|xm"l'~j wm~n|–rl n~1

Krs...r v~t ... ≤ ..q p n~q r vpr 1≤yr n r rnq pn rs yy n~q ~qr n~q nyy ur yr n~q ≤ ...v v..~ ..s uv Y v np Y..yvp 3Rs ... q...~... nt rr ... ur ryr n~ nt rrz r~ ... n~ ..sv r z 1 ... z ..≤ v~t ... ≤ ..q p n~q r vpr 3

R3 L..yyr p r q R~s...z n v..~

Zx nw~"|n 'qn wx|v j uy|xm"l' xyn|j'rxwj wm qnuy 'qn ~n|–rl n rv y|x–nv nw'/ " n " ruu l xuunl' 'qn rwox|v j'rxw –xu"w'j|ru± y|x–rmnm k± ±x" x| y|x–rmnm j ~ j "'qx|r°nmk±±x" m"|rwp|npr~'|j'rxwj wm"~n x| pnwn|j'nmj ~j |n~"u'xo±x"| "~n xo~n|–rl n~1

63 b r [rtv n v..~ R~s...z n v..~Bl ... sv rtv n v..~1 ur srn r rz ≤yn r -Ov~t r ≤ v~ rz ≤yn r 4Onpr rz ≤yn r 4Ynyz rz ≤yn r, " ruu kn ~j –nmxw'qn mn–rl n j l l x|mrwp 'x 'qn mn–rl n '±yn ±x" qj –n ~nunl'nm 'x –n|ro± 'qn "wrz"n ~rv ruj|r'± kn'" nnw ±x" j wm'qn [~n| NL ±x" qj –n |npr~'n|nm1 bx" l j w xy'rxwj uu± nw'n| ±x"| Tj v n j wm Hxmm1 Zqn j kx–n

rwox|vj'rxwr~wnln~j|±o<|±x" 'x "~nx"| y|xm"l'~1Nb±x" mx wx' y|x–mm~"lq rwox|vj'rxw/±x" ljwwx' "~n~xv nonj'"|n~xo'qny|xm"l' |np"uj|u±1

73 Y..q p v~s...z n v.~B Fllx|mrwp 'x 'qn y|xm"l' v xmmujwm ±x"| p|jwnmyn|vr~rxw" qnw±x" rw~juujwm"~nx"| ~n|–rln~/'qn |nuj'nm rwox|vj'rxwxo'qn y|xm"l' xw" qrlqx"| ~n|–rln~j|n "~nm" ruukn lxuunl'nm" qnw'qny|xm"l' r~lxwwnl'nm'x 'qn~xó" j|n/rwlú"mrwp'qn V|xm"l' Sxmmu/Kr|v" j|n]n|~rxwT"vkn|/V|xm"l' Yn|rjuT"vkn|/jwm V|xm"l' Hjyjlr'±Nwox|vj'rxw1**dur~ ... p..~~rp ... ≤ ..q p ...ur ..s nr1≤yrn rpn rs yy rnq ur ≤ vnp ≤..yp s... ur ≤rpvsvp ..s nr3**

RRB Y..q p]rp v n~qVn~ntrzr~

63 _qnw±x" "~nx"| y|xm"l'~o<| 'qn o|~' 'rvn/±x" ~qjuu~n' 'qn Fmv rwr~|j'x| y|r–runpn knox|n yn|o<|vrwp ~ynlrorl xyn|j'rxw~1 U'qn|" r~n/±x" "ruukn qnz"nwlu± |nv rwmmm'x ~n' 'qn Fmv rwr~|j'x| y|r–runpn "qnw±x" nwln|'qn vjrwv nw' rwn|qjln1**Rs ... vyyq...~... r ur lqzv~v n ...≤ vyrtr nsr rprvv~t ur rz ≤ ..z ≤ 1 ... u...yq or n nr..s ur ≤... voyr rp v vx-s...r nz ≤yr1 ur qn nz n or z n~ nyy z ..qvsvrq.3**

73 Fuu'qno"wl'rxw~xomr~yuj±rwp'qn krxvn'|rl rwox|vj'rxwj|nmr~jkunmrw x"| y|xm"l'~k±mmqj"ú1bx" ljwlqxx~n Snw" CY±~'nv Yn''rwp~'x ~n' "qn'qn| 'x mr~yuj±'qn krxvn'|rl rwox|vj'rxw1Nb±x" nwjkun 'qn~n o"wl'rxw~/"nj~"vn 'qj' ±x" j|nj"j|n xo'qn yn|~xwjuy|r–jl± ~nl"|r'±|r~t~~ynlrommrw'qny|r–jl±yxurl±1

83 Uwu±x"|"~n| Nl r~mr~yuj±nmk±mmqj"ú1bx" ljw~n'" qn'qn| 'x mr~yuj± x'qn| "~n| –n|rorlj'rxwrwox|vj'rxw+"lqj~Tjvn/Inyj|'vnW/Vqx'x/ n'l1,"wmm| 'qn Fmv rwr~|j'x| y|r–runpn1**Rs ... pu.....r ...qv≤yn pu**

v~s...z n v.~1 r n z r un ... n r n n r ..s ur ≤...r~ vny rp v vx -s... r nz ≤yr1 ... ≤u..... vyyor qv≤yn rq ..~ ur qr vpr v~ r snpr.3

93 Zqn l j v n|j ơ'wl'rxwr~mr~jkunmrwx"|y|xm"l'~k±mmj"ú1Nb±x" "jw 'x nwjkun 'qr~ơ'wl'rxw 'x 'jtn yrl'"|n~xo±x"|~nuo ox| j''nwmjwln |nlx|mrwp x| 'jtn yrl'"|n~xo~'|jwpn|~ox| jlln~~lxw'|xu'qn y|xm"l' "ruunwjkun 'qn y|xv y' 'xwn xo'qn l j v n|j1**X~pr ... r~noyr uv s ~pv.~1 r n z r un ... n r n n r ..s ur ≤...r~ vny rp v vx 3**

:3 Fuu'qn mj'j lxunl'nmk±x"|y|xm"l'~r~nwl|±y'nm"~rwp 'qn FJY 589 jupx|r'qv 1Fuu'qn mj'j "yuxjmmmk±'qn Fmv rwr~'|j'x| 'x x"|y|xm"l'~ j|nj"'xv j'rljuu± nwl|±y'nm"~rwp 'qn FJY 589 jupx|r'qv jwm~'x|nm ~nl"|nu±1Nb'qn Fmv rwr~'|j'x| mx" wuxjm~mj'j qlxv x"|y|xm"l'~/" n j~~"v n 'qj' ±x" wnnmm'x y|xln~~'qn mj'j jwm±x" qj–n twx" w'qn yx'nwlrju~nl"|r'±|r~t1Nv~'lq j lj~n/±x" ~qjuu'jtn 'qn |n~yxw~rkru'± ox| ~'x|rwp 'qn mj'j1bx" ~qjuu twx" 'qj' ~xv n mj'j ljwwx' kn mx" wuxjmmmox|~jtnxomj'j ~nl"|r'±1

<3 Fuu'qn yn|~xwjurwox|v j'rxwrwx"|y|xm"l'~ljwkn z"n|mm/v xmrnmm/ x|mmun'nm1Nb±x" wx uxwpn|"~nx"|y|xm"l'~/yunj~nlunj|±x"|yn|~xwju mj'j1

NNNN Q... r un~qyr ≤r ..~nyv~s...z n v.~..sz v~...

U"|y|xm"l'~/" nk~r'njwm~n|–rln~j|nvjrwu±mn~rpwnmox|jm"ú~1_r'qx"' lxw~nwl xoyj|nwl~x|p"j|mjw~/vrwx|~~qjuuwx'l|nj'n'qnr|x" wjllx"w'1Nb ±x"j|njvrwx|/r'r~|nlxvvnwmmm'qj'±x"j~t±x"|yj|nwl~x|p"j|mjw'x |njm'qr~Vxul±lj|nơuu±/jwmxwu±"~nx"|~n|–rln~x|rwox|vj'rxwy|x–mmm k±"~" r'qlxw~nwlxo±x"|yj|nwl~x|p"j|mjwl

_n" ruuxwu±"~nx|mr~lux~nyn|~xwjurwox|vj'rxwxovrwx|~lxunl'nm" r'q

'qnr| yj|nw\~ x| p"j|mjw~ lxw~nw\ rojwm'x 'qn n—'nw\ 'qj' ~"lq "~n x| mr~lux~"|n r~ yn|v r'nm k± uj" x| "n qj–n xk'jrwnm 'qnr| yj|nw\~ x| p"j|mjw~ n–yurl' lxw~nw\/jwm~"lq "~n x| mr~lux~"|n r~ox| 'qn y"|yx~n xo y|x'nl'rwpv rwx|~1

[yxwwx'rlrwp 'qj' " nqj–nlxunl'nmyn|~xwjurwox|vj'rxwxov rwx|~" r'qx"' 'qn y|rx| lxw~nw\ qxv –n|rojkun yj|nw\~/" n " ruumnun'n ~"lq rwox|vj'rxwj~ ~xxwj~yx~~rkun1

Rt3 X ur

bx" ljw–r~r' q''y~22" " "1't'nlx1xv 2lw2wmm–2Nwmm–2y|r–jl±hy|x'nl'rxwtq'vu 'x unj|wvx|njkx"' qx" "nlxuunl'/"~n/jwm~nl"|nu± ~'x|n ±x"| yn|~xwju rwox|vj'rxw1 Zx tnny yjln "r'q 'qn |jyrm mn–nuxyv nw\ xo 'nlqwxuxp±/ jms"~'v nw\ xok"~rwn~~xyn|j'rxw~/jwm'x lxyn" r'ql"~'xv n| wnnm~/" n " ruu lxw~'jw\u± mnukn|j'n jwm xy'rv r°n x"| y|r–jl± y|x'nl'rxw v nj~"|n~ jwm yxulm~1_ nulxv n 'x –r~r' x"| xoolrju" nk~r'n j' jw± 'rv n 'x unj|wx"| uj'n~' y|r–jl±yxul±1

d A o

Zqn y|xm" l ' ~ %nl x0q|mwmu± xyn|j 'rxwj u yn|rxm%|non|~ 'x 'qn 'rv n m" |rwp " qrl q 'qr~ y|xm" l ' " nuwx' mr~l qj |pn j w± 'x–#l x| qj °j |mx" ~ ~" k~'j wl n~ " qnw " ~nm rw j l l x|mj wl n " r' q 'qn y|n|nz " r~r' n~rw 'qr~v j w" j u1

Zqn nl x0q|mwmu± xyn|j 'rxwj uyn|rxm~ynl ronmox| 'qr~y|xm" l ' mxn~wx' rwl u" mn kj ''n|m~x| x'qn| l xv yxwnw' ~ 'qj ' j |n nj ~ru± " x|w mx" w j wm v " ~' kn yn|rxm l j uu± |nyuj l nm1 Zqn kj ''n|±~nl x0q|mwmu± xyn|j 'rxwj uyn|rxmr~8 ±nj |~1

Qn n q... ...a...vp o n~pr n~q ur v n~ vvr

Hxv yxwnw' T j v n	Mj °j |mx" ~2Zx–#l Y" k~'j wl n2J unv nw'					
	Rnj m +Vk,	S n|l " |± +Mp,	Hj mv r" v +Hm,	Mn–j–j unw' Hq|xv r" v +H|9. ,	Vxu±k|xv rwj 'nm Gryqnw±u~+VGG,	Vxu±k|xv rwj 'nm l ryqnw±uJ 'qn|~ +VGl J,
Hqry Xn~r~'x|		○	○	○	○	○
Hqry Hj yj l r' x|		○	○	○	○	○
Hqry Nwm" l 'x|		○	○	○	○	○
l rxmn		○	○	○	○	○
JYl l xv yxwnw'		○	○	○	○	○
G" °°n|		○	○	○	○	○

F mj y' n|		○	○	○	○	○
Yl |n" ~	○	○	○		○	○

○ rwmrl j 'n~ 'qj ' 'qn 'x'j u j v x" w' xo 'x–#l l xw' nw' rw j uu 'qn qxv xpnwnx" ~ v j 'n|rj u~ r~ knux" 'qn uv r' j ~ ~y nl rornmrwYOZZ 44696 53391

rwmrl j 'n~ 'qj ' 'qn 'x'j u j v x" w' xo 'x–#l l xw' nw' rw j uu 'qn qxv xpnwnx" ~ v j 'n|rj u~ n–l–nnm~ 'qn uv r' j ~ ~y nl rornmrwYOZZ 44696 53391

W...r B; 3(xo 'qr~ y|xm" l '*~ l xv yxwnw' ~ j |n v j w" gj l '" |nm " ~rwp wxw0 x–#l j wm nl x0 ojrnwmu± v j 'n|rj u~1 Zqn l xv yxwnw' ~" qrl q l xw' j rw 'x–#w~ x| qj |v o" ununv nw' ~ j |n rwl u" rnmmm" n 'x 'qn l " ||nw' nl xwxv rl x| 'nl qwrl j u uv r' j 'rxw~" qrl q y|n–nw' 'qnr| |nyuj l nv nw' " r' q wxw0 x–#l v j 'n|rj u~x| nunv nw' ~1

cPZnl x Nwm' ~|rj uVj |t/Tx165/Nwm' ~|rj uXxj m/
Zj wp–rj Zx" w/I xwpp" j w/Hqrwj 1
Vqxwn>. ; 9 : 9< 0; 543<<<4
Kj — >. ; 9 : 88 0; <9356<7
" " " f't'nl x1xv

Hxy±|rpq' 5356 cPZJHU HU1/RZI 1F uuXrpq'~|n~n|–nm1