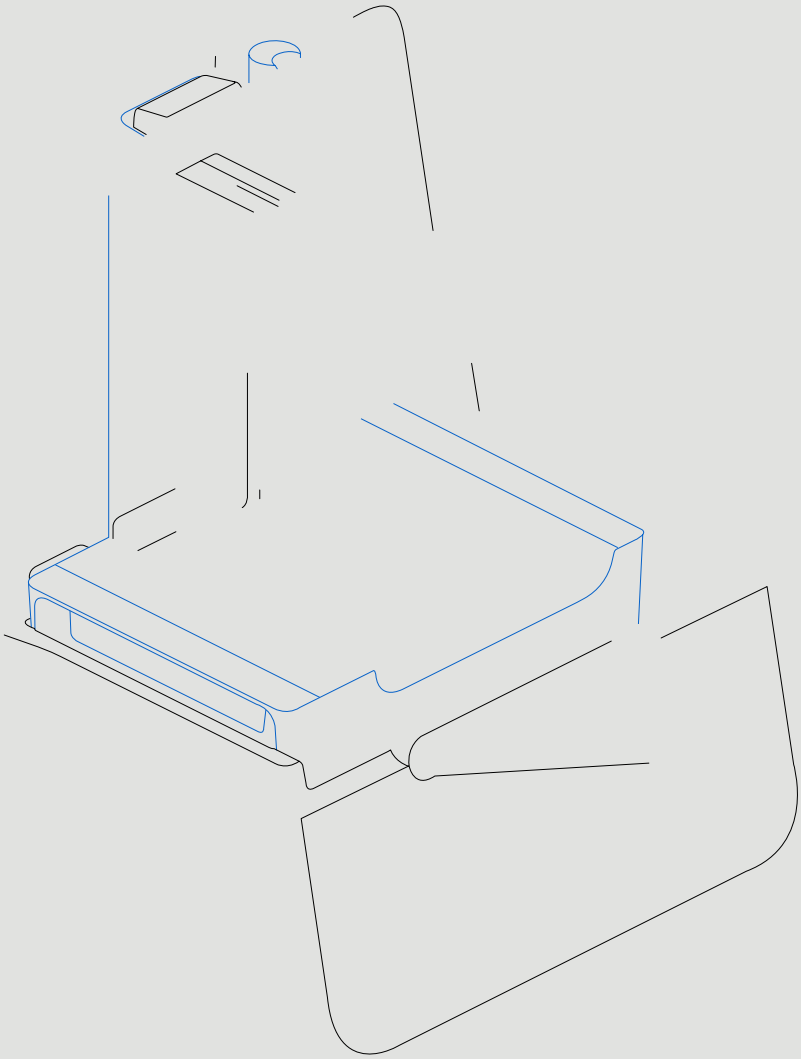
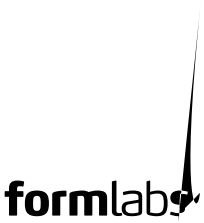
Ma a | Form 3B+




formlabs

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1. fa

C, g a _ a i, s , _ cha i g he F, 3B+. O beha f, f he F, ab ea , e ha , _ f, , _ cha e. The is _ c i, s i h a _ a _, ide i f, a i, f, s i ed es, s , _ des a ds afe, s e _ a d is a a i, , e a i, , a d ai e a ce, f he F, 3B+ 3D _ i e. The e is _ c i, s a e i e ded f, a , e h, s is a i g, e a i g, ai ai i g, , he s e i e ac i g i h he F, 3B+. S e s e , _ g, i e e ie ced s es , e s _ e e , ab e a d s afe, e a i, .

1.1 a a a I

Read a d _ des a d h a _ a a d is s afe is _ c i, s bef, e s i g he F, 3B+. Fai _ e , d, s, ca _ e _ i s e i, s i _ , dea h. Kee a s afe i f, a i, a d is _ c i, s f, f _ e efe e ce a d _, ide he , s _ b e _ e s es , f he _, d _ c.

F, , a he is _ c i, s. Th i a, id _ e, e , s i, s, e ec ic h, c s, , , he ha a d ha a _ e _ i da age, _, e a d/, s e e e, fa a i _ ie.

The F, 3B+ s ha , be s ed b es, s h, ha e f _ ead a d _ des a d he c, e s , f h s s age a _ a. E s _ e ha each es, h, s e he F, 3B+ ha _ ead he e a i g a d is _ c i, s a d f, , s he . F, ab s , iab e f, ca e , f a e ia da age, es, a i _ ca s ed b i c, ec ha d i g, , -c, ia ce i h he s afe is _ c i, s. I s _ ch ca e, he a a i be, ided.

1.2 a D a a I f a

V s is _ , f, ab .c, :

acces he a e, es i, , f a F, ab _, d _ c d, c _ e a i, .

c, ac F, ab , e _ e d, c _ e a i, , s age is _ c i, s, a d ech ica i f, a i, .

s _ b i a c, e s , feedbac _ ega di g ha s g, , d a d ha ca be i _, ed.

F, ab a _ e c, e s f, is s es.

_ e _ e addi i, a _ ai i g.

1.2.1 S a S

Re ai a ec, d, f he, igi a _ cha e, e _ e a a s e ice. Se ice, i, s de e d, he a s, f he s eci c _ i es a a . I c _ de he s e ia a e, f he _, d _ c he c, ac i g F, ab f, _, d _ c s _ , .

I s ead, f a e ia _ be, a F, ab achi e ha e a e ia a e, hich s a _ i _ e ide i e , _ ac he h s , f a _ fac _ i g, s a e, a d e ai, a d , d i g s h s age he c, ec ed , a e , . The e ia a es, he bac a e, f he achi e i h s f, a : Ad ec i e A i a. Se ice _, ide s, f F, ab _, d _ c s a s, _, ide s _ , a d s e ice. T, he e e ha F, ab , a ce i ed s e ice _, ide , es, he , e e ded a a ie, he e s, f he s e a a e, e a a . F, _, d _ c s _ cha ed f, ce i ed s e ice _, ide s, c, ac he, igi a s e ice _, ide f, a s s a ce bef, e c, ac i g F, ab .

F, a s _ , , s e ice e _ e s, i c _ di g _, d _ c i f, a i, , ech ica a s s a ce, , a s s a ce i h is _ c i, s, c, ac F, ab Se ice , a ce i ed s e ice _, ide :

support.formlabs.com	USA	Germany
	F, ab , I c.	F, ab G bH
	35 Medf, d S .	Na e a _ a s e 18
	S, e i e, MA, USA, 02143	12459 Be i , Ge a

1.2.2 **a a**

Th d c ec ed de a a . F ab e a a f a F ab -b a ded ha d a e. U he e e ed a ed, he Te f Se ice, i c di g he Wa a , c i e he e i e ag ee e be ee a d F ab i h ec he Se ice a d a d c ch e f F ab a d e ede a i c e a e c ica i , a , a , a d ag ee e , he he e ec ic, a , i e , be ee a d F ab . Read he a a f e de ab he F ab a a f egi :

S		**f**	**a**	**.**	**/**	**/**	**-**	**f-**	**/#**	**a**	**a**
E	(EN)	**f**	**a**	**.**	**/**	**/**	**-**	**f-**	**/**	**/**	
E	(DE)	**f**	**a**	**.**	**/**	**/**	**-**	**f-**	**/**	**/**	
E	(FR)	**f**	**a**	**.**	**/f /**	**/**	**-**	**f-**	**/**	**/**	

2. I σ

2.1 I σ σ

The F 3B+ a c e cia , ed i ded f e i he addi e a fac e f e d- ied de ig f h e i . The a e f a ce cha ac e i f c ed h e i a a acc di g

2.2 aS f a

	+		+	+
–	57. 51 69 c (22.5 20 27 i)	24 20 8 c (9.5 8 3 i)	35 30 8 c (14 11.8 3.3 i)	18 17. 8 c (7. 6.75 3 i)
– –	22.7 g (50 b)	1.5 g (3.3 b)	1.4 g (3.1 b)	0.67 g (1.5 b)
–	17.5 g (38.6 b)	1.35-1.6 g (3-3.5 b)	0.8 g (1.8 b)	0.65 g (1.4 b)

– –	L F ce S e e ih g a h (LFS)
A	Wid h: 40 c (15.5 i) De h: 53 c (21 i) Heigh : 78 c (30.5 i)
–	17.2 g (37.9 b)
–	A -hea 35 C (95 F)
	Ai hea ed i cha be
	100 240 V 2.5 A 50/60 H 220 W
	1 Ligh R ce ig U i EN 60825-1:2014 ce i ed C 1 La e R d c 405 i e a e 250 W a e
(–)	85 ic s (0.0033 i)
■	The F 3B+ a C 1 La e d c . Acce ib e adia i hi C 1 i .
	Wi-Fi, E he e , a d USB
	RJ-45 E he e (10BASE-T/100BASE-TX/1000BASE-T) LAN P C ec i h a E he e cab e (i c ded): i i Ca 5, Ca 5e Ca 6 1000BASE-T.
	R c : IEEE 802.11 b/g/ F e e c : 2.4 GH , 5 GH S ed ec i : WPA/WPA2
	D e e ceed 70 dB(A).
	I e ac i e d c ee
	A a ed
	145 145 185 5.7 5.7 7.3 i
	A -Ge e a ed Re ab e

2.3 E

2.4

3. Safety

Read and understand this manual and its safety instructions before using the Form 3B+. Failure to do so can result in serious injury or death.

Safe Waiting 9

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

4. a a a S

4.1 A a a

Ch e a ab e, e e ace i a d e a e he F 3B+. Ch e a ca i e a a e f a achi e i g ha ge e a e d a a ch d e a i g e i e . Re e e he f i g i i di e i f he c e ie acce :

: 40 c (15.5 i) **D** : 53 c (21 i) **H** : 78 c (30.5 i)

A addi i a ace f acce ie ch he F 3B+ Fi h Ki , F Wa h, a d F C e.

4.2 F 3B+

D i g b i g, i ec he F 3B+ f a da age i g i e . I he ca e f da age i g i e , c ac F ab he ce i ed e ice ide .

F 3B+:

1. O e he b f he . If he b ha a ide ga e, f d d he ide f he b .
2. U e he ided ha d if he i e , i ca ie a , f he b .
3. Re e he i e f he ca ie a a d e he i e i ace.
4. Re e a addi i a a i g a d ac agi g f he ide f he i e .

Remove all packaging material and release the Light Processing Unit (LPU) housing before connecting power.

a L f :

1. O e he i e c e .
2. Read a d e-1.24 -1 ,(B5F-1.24 -1 ,(B5)T`2K4 Tf0 Tc 0 -1.437 Td(1.)T`/S a [Ac a Te FEFF0009 a12 !
2.

is required for warranty service.

4.3 I a F 3B+

4.3.1 C Ca

C ec he e cab e he i e a d he e s .
Fi e ca be aded ia USB, Wi-Fi, E he e . F USB, c ec he i e a ea b c e . F E he e , c ec he i e a E he e .

4.3.2 L

NOTICE

It is important that the printer sits level so resin does not overflow from the tank during printing. All four feet must rest on a solid surface to ensure optimal print accuracy.

The F 3B+ be c e e e bef e i i g ca begi . If ed, e he e e i g d c a e e each f f i e .

F 3B+:

1. C ec he i e . If ec a , he ch c ee e f he e e i g d c.
   a. The i i ia i e e e e ce i c de he e e i g ced e.
2. F he e ee i c i ad he fee de he i e .
3. I e he d e e i g d c de he de ig a ed c e . P h i he e e i g d c c ic he f .
4. R a e he c c e a e a d c e -c c e he heigh f he i e .
   a. The i e hi i h each f f e ac ed. The heigh f he fee ca be a ed

d i g he i i ia i e e .

5. Ad he fee i he ch c ee i dica he i e e e .

4.3.3 I a a M

CAUTION

Spill hazard. Resin may spill over the tank walls if the resin tank tilts more than 5-10°. Hold the resin tank level with two hands. To inspect and clean the underside of the tank, empty the resin tank and/or take care to avoid spilling resin outside the tank.

WARNING

Resin may cause skin irritation or an allergic skin reaction. Wear gloves when handling

liquid resin or resin-coated surfaces. Wash skin with plenty of soap and water.

a a :

1. O e he i e c e .
2. Re e he id f he a ca e.
3. Re e ac agi g a e ia f he a .
4. Lif he i a i h e ha d each ide.

Avoid contaminating the underside of the resin tank with fingerprints or liquid resin.

5. A ig he i a ide as i h he ef a d igh a ca ie ab .
6. P h he ide ha d - [Ac a TT 1.24 0 Td(A ig he)T(i a ide as i h a d Td(A ig he)T

4.4.1 Connecting USB

Use the included USB cable for connecting to the computer.

1. Plug the square end of the USB cable into the back of the Form 3B+.
2. Connect the other end to a computer USB port.

4.4.2 Connecting Ethernet

The rear of the printer is equipped with a RJ-45 Ethernet (10BASE-T/100BASE-TX/1000BASE-T) LAN Port. Connect a LAN with Ethernet cable (not included): Cat 5, Cat 5e or Cat 6 for 1000BASE-T.

1. Plug the Ethernet cable into the back of the Form 3B+.
2. Connect the other end to a LAN.

4.4.3 Connecting Wi-Fi

The Form 3B+ is built-in Wi-Fi (IEEE 802.11 b/g/n) and supports WPA/WPA2 security. Use the Form 3B+ touchscreen to connect to a Wi-Fi network.

When connected to a active Ethernet connection, available Wi-Fi networks, the Form 3B+ can be configured with a static IP address.

To configure Wi-Fi using a static IP configuration:

1. With an established Ethernet or available Wi-Fi connection, navigate to Setting on the touchscreen.
   a. For Wi-Fi networks, select Wi-Fi, then desired network.
   b. For Ethernet connections, select Ethernet.
2. Toggle the Manual IP setting to ON.
3. Input the static IP Address, Subnet Mask, Default Gateway, and DNS Server.

4.5 Preparing the Form 3B+ for Shipping

Refer to the Technical Specifications for acceptable weight and environmental conditions for shipping. Keep the packaging for shipping, including the following:

- Resin cartridge, cardboard
- Build platform, cardboard
- Power cable

Do not ship with resin inside the printer. Resin left inside the Form 3B+ can damage the printer in transit, which may lead to additional fees or void the warranty.

Preparing the Form 3B+:

1. Allow the build platform to finish cleaning, and carefully remove the part before shipping the Form 3B+.
2. Wipe the build platform with a dry cloth to remove the alcohol.
3. Secure the build platform to the Form 3B+.
4. Secure the cartridge with the provided cable tie.

When shipping a printer to Formlabs for service, the build platform, resin tank, power and USB cables, and other accessories should not be shipped and will not be returned after service. The printer's original packaging is required for warranty service. Contact

other certified service providers for unique guidance on shipping requirements.

a a F 3B+:

1. If he ‹ i e s , e ca db, a d ca , ha bee c, a s ed, s a b ‹ ea s e b i g a d s ec‹ e a i g he b, s b, , , e i g.
2. T, s ec‹ e he LPU h, s i g f‹ s hi i g:
   a. Ta he ‹ e ch ic, , he , cl s c ee , , e he Se i g e . Fi d a d s e ec he s hi i g, i, , ‹ e a e he ‹ i e f‹ s hi i g.
   b. D s c, ec he , e cab e.
   c. O e he c, e a d , ca e he s hi i g a ch , i g , i s , he ef s ide , f he LPU h, s i g. The LPU h, s i g s i he LPU ga age , he ‹ igh s ide , f he ‹ i e .
   d. A ig he , s , s i he a ch i h he , s c e h, s i he s ide , f he LPU h, s i g. The s h‹ s ide , f he a ch s h, d be ‹ ie ed a a ‹ f, he ‹ f, , f he ‹ i e a d , i , a d ‹ f, he LPU h, s i g.
   e. L, s e h ead he , h b s c e s h, gh he s , s a d i , he LPU h, s i g.
   f. S ide he a ch , a d he ‹ f, , f he ‹ i e s , ha i e gage s i h he i s ide , f he ‹ i e s he . If ec s s a , ad s he , s i i, , f he LPU b a a ‹ i g he ead s c e a he bac , f he ‹ i e ca i . The s hi i g a ch s h, d a a agai s he LPU h, s i g he i e gage s i h he s , i he ‹ i e s he .
   g. Tigh e b, h h b s c e s , s ec‹ e he a ch. The a ch d, s , , e he b, h h b s c e s a e igh e ed.
3. C, s e he ‹ i e c, e .
4.

5. F 3B+

5.1 a a E

The e a i g e e a e f F a i e 64 82 F (18 28 C). F i a i i g,

IPA is flammable. Keep containers closed, and keep out of the reach of children.

4. P[illegible] -C[illegible] e: U[illegible] e F[illegible] C[illegible] e [illegible] e[illegible] e [illegible] i ed a[illegible] [illegible] igh a d hea [illegible] abi i e he a[illegible] f[illegible] e f[illegible] a ce.
5. P[illegible] -R[illegible] ce[illegible]: Re [illegible] e[illegible] [illegible] [illegible] , he [illegible] e[illegible] a di g, [illegible] i i g, [illegible] ai i g [illegible] i [illegible] e [illegible] e a i [illegible] , [illegible] e [illegible] he e [illegible] i e [illegible] e a e [illegible] d f [illegible] i ed a[illegible].

In an emergency involving resin, always refer to the Safety Data Sheet (SDS) and/or seek help from a medical professional.

Whe ha d i g IPA, a as c, s _ hes afe Da a Shee (SDS) f, he IPAs _ ie s he
i a s, ce, f i f, a i, . Ha d e IPA i h g, s i a e e ia ed a ea. Kee a a
f, hea s a s /.947 0.915 8c4 033a eA i h e a f, s,

6.

6.2 I a B

6.2.1 I B a

The bi e a e , ca ed , he de ide , f he i ca idge. Thi e ib e ea eg a e i di e i g. Re i , , f he , e i g he ce e , f he bi e a e he he ca idge di e e a , ee e he a e , e .

Whe i chi g , adj e e i ca idge, i ec he bi e a e f , a c ed i , da age.

6.2.2 I a l

See **6.5.2 Maintain the Resin Tank.**

6.3 M l a Ma a a

6.3.1 ID C a a Ca

ID (ide i ca i ,) chi , i a a d i ca idge de ec , ac , a d ach he i e i he a ih he , e i ca idge. The ID chi , he de ide , f each a f a e a d , he b , , f he ca idge ea he bi e a e.

R , ec he ID chi , he a ca ie , he a , i g ge , a d he ca idge i g ge f , i c , a i a i , da age. C ed i c , a i a i , e e he i e f , , e ide if i g a ca idge i a d i g i e i , . Se. A , ide , i g he ca idge ID chi , he i a ID chi , he a ca ie , a d he a i g ge , i id i .

6.3.2 C a ID C S F

6.5 a Ma a

F de ai ed g ida ce a d a a a ce ea ch .f a . .
Mai e a ce a ha be d e acc di g he f i g a :

U da e he a e	Whe R eF i dica a e a e i a ai ab e	6.5.1
Re ace he i a	Re ace he ea he begi , a ec i a i	6.5.2
Re ace he i ca idge	Whe he ca idge e , af e 1 i e f i i g	6.5.4
Fi e he i	Whe ca a ee a ic i he a	6.5.3

6.5.1 a F 3B+ F a

F ab eg a e ea da ed a e b g a d i e f c i a i . Re ie he R eF a d a e e ea e , ea e ab he i e e ha c e i h each i e e e.

6.5.2 Ma a a

Spill hazard. Resin may spill over the tank walls if the resin tank tilts more than 5-10°. Hold resin taspill 0.0[illegible]

Debs, c, a i a i, i he s i :

See **6.5.3 Filter the Resin.**

C ea , deb s f ee s i he s a , id i fai s , hich a da age he a .

Se ed ig e i he s i : R s i ig e ca s e e , he . T s e e he i e s f c i , s ide he a , , agai s he , e , e s e ed ig e .

T, c ea he de s ide , f he :

1. A a a a , , f c ea IPA , a PEC*PAD.
2. Wi e he s face , f he , e , e c, a i a i, s i .

T, c ea he R s i Ta f a e e e i s :

3. U e a a e , e , c ea s i f , he e e i s , f he a f a e.
4. Kee he s ide , f he a c ea a d f ee , f s i .
5. A , id s i , he de s ide , f he , beca s e he c, a i a i, a s i i fai s a d/ s da age , he , e h, de .

a

7.

F de ai ed g_ida ce a d a a a ce ea ch .f a . .

7.1 C D a L

The F 3B+ ai ai diag ic g ide de ai ed i f a i, ab he i e

e. Lif he c ed i , f he i a .

I. If he a , ca , h d he c ed i :

2. A ach he , a , f he a , , he b , a .

3. S ee e he c ed i be ee he , e d .

f. R he c ed i , he a e , e .

5. D e , f c ed i . See **8.1.1 Disposal of resin.**

6. C ea he a , a d a ea.

a a :

1. A c ea IPA , a c ea a e , e .
2. Wi e he face , f he a , , e , e i .
3. A , he a , , ai d .

:

1. R he a , i he F . W h ba e .
2. Se F . W h , c ea f 5 i . I c ea e he i e f , e ha s f h.
3. A , he a , , ai d af e a hi g.

7.4

I he ca e , f a e , ab a ac i i h he F 3B+ efe e ce he f , i g e , , ca e , a d , ed , i . C e e he i i ia , b h , i g e a d ca ef d c e a e . C ac F ab a ce i ed e ice , ide f addi i a a a ce.

7.4.1 A a F D S -

The bi e a e d , d e e i .	The i ic e a e ia ha ea ed i e f. R i a c e , e he bi e a e , e i g.	T , b h , a c ed bi e a e: 1. C e he e ca a d e , e he i ca idge f he i e . 2. T he ca idge ide d , i ec he bi e a e. 3. S ee e he a e a fe i , , e he ea a d e ab e i , . 4. If ee i g he a e d , e ab e i , ca ef e he i , f he ee e f he Fi h Ki F . W h , h h , gh he , e i g , e ab e i , . 5. If he bi e a e ea e ai c ed af e , b h , i g, c ac F ab S f addi i a he . S b i h , f he bi e a e ea i h , e e .
The a ge R i ic , a ai ab e i R eF .	The i e a , be , e c ec ed , he a e , ca e .	C ide he f , i g: Chec , ee ha d , ha e , he , e i a ce , f R eF . Sa e a bef e a i g R eF . Re-c ec , i e , ab h a , e c ec i .
M i g R i Ta , M i g Ca idge	The ID chi ( ) di i g.	1. F e , e he i a a d/ ca idge. 2. Chec he ID chi he i a a d/ ca idge , e e he ID chi e e a d c ea . 3. C ea he ID chi , if ec a **S 6.3.1 C a ID C S F .** 4. Re-i e he i a a d/ ca idge.

H, e s. Li e M, de ha e i ea c s s. h, e .	Ob c i, s i he, ica a h b, c he a e f, c s i g. e i i a eci c a, f he, de.	C, s ide he f, , i g: Chec he de ide, f he e i a .908 -42.32 30

8. D a

8.1 G a f a D a

CAUTION

Refer to the Safety Data Sheet (SDS) and local authorities for guidance on disposing of IPA.

8.1.1 **D a f**

Li id i (he he e i id, d , ed i a c h , a ia c ed) a be c i ed a ha a d, a e a d ha be d ed f i h ca e.

D f a :

I he U i ed S a , e i c ai e a e c, i de ed RCRA e b EPA a da d a d ca be h , i he ga bage a eg a a e.

O i a - T i e i e he ca idge i h f h IPA , e he i ca idge f ace , f e ce i . Add he i g di IPA , , e a e ea i acc da ce i h g , e e a eg a i .

f a a :

1. Re , e he i a .
2. T a fe d e f he e ai i g i .
3. P he i f he d a he e a a he c ai e . If he e deb c ed a i he i , e he i bef e a fe i g i , a e a .
   a. P i g i bac i he igi a ca idge a c a i a i g he ca idge i h c ed i iece deb , hich ca ca e i fai .
4. U e a a e , e i e a e ai i g i he d a .
5. P ace he d a i igh (a i d i e) UV igh c e e ce i , a d d e f e ce c ed.

D f :

T d e f e i (i ha ha bee c ed d , ed i a c h ,), add h e , che ica d a ea .

If a a a a :

1. P a a a f i i , a abe ed i -c a ib e c ai e .
2. Lea e he c ai e ide, e ed igh c e f 1-10 da . E e i 405 igh a d hea f he e ec i e c i g. The i id i c , id a e ia he e ed igh a d hea .
3. D e f he f -c ed i a d c ai e i he h.

D f a a :

D ca d c ea ed a a d c ed (ha de ed) i i h h eh d i e a h. C ea ed a a d c ed i ca be ec c ed.

8.1.2 **D a f I A a**

Safe a d a ia e d a e h d f ed IPA a b ca i .

af f I A:

1. C he afe da a hee (SDS) f he IPA ie a he i a ce f i f a i .
2. R ea ch ca g e e a ed e h d f d a . Th i i e i e h i i g a e d a e ice , f a e a , chec i g i h ci d a e ice ee if he ha e a gg i f e a .

3. If, , a e d, a a e ice ha , b, e c, ai IPA i h a a , , f e hac a ed , , e a d, ig, e (, e i ed a ic, e i) a d, ace a , , f h, , i i ia, . Ha e a c, , f he, e i SDS, ha d i ca e he a e da eed, e i f, a i, .

F, a ge , , e , f IPA, c, ide, i g a, , e , ec c i g, e , hich, e a c, - e ec i e a d, e e , i, e a , e, ib e a e a i e, a i g f, a e, , e d, a e ice. S, e , ec c i g, e e, e d i a i, a d f ac i, a i, , c e, e , e , , e f, a e, e , a i g i, ib e, e- e he IPA, h a . The ec c ed IPA a i ha e a a , , f , , e i i. Rec c i g IPA ed c a e d, a c, , e i, ha a e e i ed , , d ce, e , a d he c, f, cha i g IPA.

8.1.3 **D a f**

The b, , he , d c, he acce, i e, , ac agi g i dica e ha h de ice ha , be ea ed a, d, ed, f i h h, e h, d a e. Whe , decide, d, e, f h, , d c, d, i acc, da ce i h, ca e , i, e a a a d g ide i e. D, e, f he de ice ia a c, ec i, i f, he ec c i g, f a e e ec ica a d e ec, ice i e. B d, i g, f he de ice i he , e a e, , he , a , id, ib e ha a d f, he e , i, e a d b ic hea h ha c, d, he e be ca ed b i , e ea e, f a e e i e. The ec c i g, f a e ia c, ib e, he c, e a i, f a a e, c e. The ef, e d, d, e, f, , d e ec ica a d e ec, ice i e i h he, ed ici a e.

8.1.4 **D a f a a a**

Sa e he F, 3B+ ac agi g f, a, i g , i e. Q igi a ac agi g e i ed f, a a e ice a d de ig ed, be e a d e ed f, a, a i, , hi i g.

The ac agi g ade, f ca db, a d a d a ic-ba ed a e ia. D, e, f ac agi g h, gh, , ca a e a d ec c i g faci i ie. B d, i g, f he ac agi g a e i he , e a e, , he , a , id, ib e ha a d f, he e , i, e a d b ic hea h.

	The F[illegible] 3B+ [illegible] a 100 240 V [illegible]. The [illegible] +24V DC.
	The [illegible] he [illegible] ca[illegible] idge. R[illegible] ed [illegible] he [illegible] ca[illegible] idge. [illegible] he [illegible] b[illegible] . O[illegible] e [illegible] ed [illegible] ca[illegible] ad [illegible] ca[illegible] ea[illegible] ad .
	The [illegible] ID chi[illegible] E[illegible] ca[illegible] E[illegible] ab[illegible] R[illegible] ga[illegible] ab[illegible] Read-O[illegible] Me[illegible] (EEPROM). The [illegible] ead [illegible] chi[illegible] de ec[illegible] he [illegible] ID a[illegible] d c[illegible] e [illegible] e.
	Seg[illegible] e[illegible] ed [illegible] ac[illegible] be[illegible] f[illegible] h[illegible] e[illegible] f he LPU h[illegible] ac[illegible] he [illegible] he[illegible] a[illegible] . The[illegible] d he [illegible] ica[illegible] id[illegible] . C[illegible] ea[illegible] ec[illegible] he [illegible] a[illegible] d[illegible] e[illegible] e[illegible] i[illegible] a[illegible] i .
	Fi[illegible] e[illegible] ec[illegible] e[illegible] e[illegible] a[illegible] ca[illegible] i[illegible] g[illegible] ec[illegible] he[illegible] i[illegible] e[illegible] i[illegible] e[illegible] a[illegible] c[illegible] e[illegible] . (1) Rea[illegible] he : a[illegible] ic ca[illegible] i[illegible] g f[illegible] he bac[illegible] f he[illegible] i[illegible] e . (2) Side[illegible] he[illegible] : [illegible] e a ca[illegible] i[illegible] g f[illegible] he ef[illegible] a[illegible] d[illegible] igh[illegible] ide[illegible] . (1) T[illegible] he : a[illegible] ic ca[illegible] i[illegible] g[illegible] ec[illegible] he[illegible] a ea[illegible] di[illegible] g he[illegible] i[illegible] a[illegible] de he c[illegible] e . (1) F[illegible] he : he g[illegible] d[illegible] a[illegible] e b[illegible] a ached[illegible] a[illegible] ic[illegible] a[illegible] e, hich[illegible] e ca[illegible] he f[illegible] f he[illegible] i[illegible] e be[illegible] he c[illegible] e .
	The[illegible] e b[illegible] h[illegible] d[illegible] he[illegible] i[illegible] a[illegible] a d[illegible] e[illegible] i[illegible] he[illegible] . The[illegible] a[illegible] ca[illegible] ie[illegible] c[illegible] e ed b[illegible] he[illegible] he[illegible] a d h[illegible] he[illegible] e[illegible] i[illegible] e, Le[illegible] e Se[illegible] e, [illegible] i[illegible] a[illegible] i[illegible] g[illegible] ge[illegible] , a[illegible] ca ch[illegible] e[illegible] , a d[illegible] i[illegible] e[illegible] c[illegible] e[illegible] .
	The[illegible] i[illegible] a[illegible] ide[illegible] a[illegible] c[illegible] ec[illegible] i[illegible] ea[illegible] , [illegible] each[illegible] ide[illegible] f he[illegible] a ca[illegible] ie[illegible] . Whi[illegible] e[illegible] i[illegible] i[illegible] g, he[illegible] ah[illegible] he[illegible] a[illegible] a[illegible] d he[illegible] i[illegible] e[illegible] i[illegible] .
	Each[illegible] i[illegible] a[illegible] i[illegible] c[illegible] de[illegible] a idded c[illegible] ai[illegible] e f[illegible] i[illegible] g he[illegible] i[illegible] a he[illegible] i[illegible] e.
	P[illegible] ic ha[illegible] d[illegible] , each[illegible] ide[illegible] f he[illegible] i[illegible] a[illegible] a[illegible] f[illegible] e[illegible] i[illegible] e[illegible] i[illegible] , [illegible] e[illegible] a, a[illegible] d ca[illegible] i[illegible] g[illegible] f he[illegible] a[illegible] . A[illegible] id[illegible] chi[illegible] g he b[illegible] f he[illegible] i[illegible] a[illegible] , a[illegible] ge[illegible] i[illegible] ca[illegible] ea[illegible] e[illegible] dge[illegible] ha[illegible] b[illegible] c he[illegible] ica[illegible] a h.
	Th[illegible] a he bac[illegible] f he[illegible] i[illegible] a[illegible] i[illegible] de[illegible] ea h he ca[illegible] idge d[illegible] e[illegible] e h[illegible] e a[illegible] d[illegible] ece[illegible] i[illegible] f[illegible] he ca[illegible] idge.
	The[illegible] e e ec[illegible] ica[illegible] c[illegible] ac[illegible] , a he bac[illegible] f he[illegible] i[illegible] a[illegible] ca[illegible] ie[illegible] ead he[illegible] i[illegible] a[illegible] EEPROM ID chi[illegible] e[illegible] e he[illegible] a[illegible] e[illegible] ce a d[illegible] c[illegible] ica[illegible] e he[illegible] i[illegible] e[illegible] R[illegible] eF[illegible] .
	I[illegible] ec i[illegible] g a d c ea i[illegible] g he i[illegible] e i[illegible] f he[illegible] i[illegible] a[illegible] e[illegible] i[illegible] a[illegible] ecia[illegible] - a[illegible] a[illegible] a. Th[illegible] he[illegible] c ea[illegible] he[illegible] i[illegible] e i[illegible] face.
	The LCD ca[illegible] aci[illegible] e[illegible] ch[illegible] e[illegible] i[illegible] e face d[illegible] a[illegible] i[illegible] i f[illegible] a i[illegible] , [illegible] e i[illegible] g, a d[illegible] e[illegible] ag[illegible] .
	The F[illegible] 3B+ ca[illegible] c[illegible] ec[illegible] a c[illegible] e[illegible] ia USB. The[illegible] c[illegible] ec ed[illegible] he[illegible] he b[illegible] a d a d ca[illegible] be acc[illegible] ed f[illegible] he bac[illegible] f he[illegible] achi[illegible] e.
	The id[illegible] a he[illegible] f he ca[illegible] idge a[illegible] f[illegible] a[illegible] i[illegible] e cha[illegible] ge, e ab i[illegible] g[illegible] e[illegible] i d[illegible] e[illegible] i[illegible] g. P[illegible] h he[illegible] e ca[illegible] e[illegible] i[illegible] i[illegible] i[illegible] g.
	The Wi-Fi a[illegible] e a e ab[illegible] he F[illegible] 3B+[illegible] i[illegible] e[illegible] c[illegible] ec i[illegible] i . The a[illegible] e a[illegible] h[illegible] gh a h[illegible] e[illegible] he[illegible] i[illegible] e[illegible] he b[illegible] a d.

-	Th[illegible] ica[illegible] a[illegible] he bac[illegible] f he [illegible] i[illegible] ide[illegible] f[illegible] a[illegible] f he F[illegible] 3B+. The b[illegible] i d[illegible] a f[illegible] a[illegible] ed a[illegible] d[illegible] ed

11. C a

F 3B+ f a a a af a :

E a

UL 60950-1, 2 d Edi i , 2014-10-14
CAN/CSA C22.2 N . 60950-1-07, 2 d Edi i , 2014-10
IEC 60950-1: 2005 + A1: 2009 + A2:2013
EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010 + A2:2013

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