1. Save and Exit from the Previous Study

setting	on Pro	00001			0.00	
Study Nar	ne Feb3	Study ID	Feb3	Study Start	StartAll	Study Stop AbortAll
Group	1 Group2	Group3	Group4	Group 5	Group 6	
Animal	D (g)	Pump ID	Administration St Time	art Start 1	Abort	Status
4X0297	25	4X0297	2015/02/03 14:00	Start	Abort	Programming
4X0298	25	4X0298	2015/02/03 14:00	Start	Abort	Programming



then pump(s) will only be available after group infusion protocol complete It will be impossible to re-program the pumps until then.

3. Option of Erasing the Pump Data

Host IP :	192.168.1.1	10	Disconnect
PumpID		Calibra	tionFactor
4X0306			
4X0298		1139	
4X0297		1090	
4X0304		1082	
4X0303		1123	

2. Change pump Condition/ Status



Pump ID	Condition
490031	STATE_ACTIVATED
4X0301	STATE_ACTIVATED
4X0300	STATE_ACTIVATED
4X0299	STATE_ACTIVATED
4X0298	STATE_ACTIVATED
4X0297	STATE_USED
4X0306	STATE_ACTIVATED
4X0304	STATE_USED
4X0305	STATE_ERROR
4X0303	STATE_ERROR
4X0302	STATE_ACTIVATED

User's Manual Pg. 47
1 Open "Utility Pump Databa
to check the pump status.
Chose State Activated = from

Utility Pump Database Manager

ase Manager" and select Load

Chose State Activated ▼ from the pull down menu and apply only to all pumps you plan to re-use.

Click Save and close the window.



Make sure to close the iPRECIO Application before running this application

4. Start IMS-300 iPRECIO Application to start a new study by re-programming pumps



Start a new study new study.

Support Materials of iPRECIO®

User's Manual Pg.48

Utility Pump BaseStation Manager

It is not necessary to erase the pump data in the UCD-300 to re-program the pumps. If erased, it will mean the pumps will need to be re-detected to be programmed/used.

1 Erasing the Pump Data in UCD-300: Open "Utility Pump BaseStation Manager" and select/click Connect and Get Pump List .

Click Delete All and wait until process completed. Then close the program.

The pump data not erased, communication with the pump will be Carried out at the KVO step and/or Infusion Protocol Setting.



You can request for our support materials

http://www.iprecio.com/support/

of your interest from

Compatibility test

Compatible solvents/vehicles for iPRECIO®

Frequently Asked Questions <FAQ>

-This FAQ incorporates the most frequent question and answers for iPRECIO[®] pumps.

Technical / Surgical Note



Bibliography New publications

Videos



http://www.iprecio.com/video/smp300/



SMP/IMS-300 Model



You will have to manually calculate remaining battery life for this

When intending to reprogram pumps, recommended to estimate battery life of both studies in one <Group ID/Profile> if possible.

Make sure that the battery is shorter than in the group profile window. Remaining battery life here is calculated as new.

The iPRECIO[®] is for use in Laboratory Animal Research ONLY. Not for human use.

www.iprecio.com E-mail: iprecio@primetech.co.jp

1-3-25, Koishikawa, Bunkyo-ku, Tokyo, 112-0002 JAPAN CORPORATION Phone: +81-3-3816-0851 Fax: +81-3-3814-508

Windows Update:

Change settings to download updates but let me choose whether to install them.

Micro infusion pump **ipre**io[®]



r computer,	
rators rators	
Properties	
assword.	
sword	
Apply	

PC settings:

- Please TURN OFF the screen saver.
- Go to control panel and change the Power option as "Never Sleep Mode'
- Please set the user account as Administrators" (see picture left)

Study Header : Start a New Study

Pumps and Animals setting : Animal Setting, Pump Assignment

(Pump Activation/ Detection)



This guide does not replace reviewing the iPRECIO® User Manual thoroughly. It assumes prior knowledge of iPRECIO[®] use. Some minor steps may have been omitted due to space constraints. If in doubt, refer to the manual,

							\square	User's M Pg. 24	
O IPRECI	O Management Sol	ftware IMS-300						- X-	
File(E)	InfusionProfile()	NetworkSetting(W)	Monitor(M)	Customize(Z)	Registration	(R) Language(L) I	Help(H)		
C	ipr	E©IO				Managem	ent Soft IMS	ware -300	
			Stu	dy Heade	r				
	Study Information								
	Study Name (*]	Stu	dy ID (*)				
	User (*)]	Stu	dy Date (*)	2014/10/22 17:59	N		
	Remark								
							Next >>		
					_				

Study Information:

Required Fields: ———	Examples:
Study Name	Example February 7th
Study ID	February 7th
Select the User	John Smith (Select your name)

Register at least one operator and customize fields with animals, strains, etc., prior to starting a new study. Refer to manual as required.

After completing all the fields, Next>>



Pumps can only be detected and programmed after being turned on.

User's Manual

Pg.24-27

After filling the pumps to the catheter distal ends, activate pumps, by pushing down the black button with a blunt pointed tool like a pair of forceps. *Firmly hold pump down with finger(s) and press down firmly to Power ON.

Take care not to damage silicon coating. Make sure to "Activate" all pumps. *Detect pumps before inputting the animal info. *Once pumps detected, assign to animal ID.

(r) vegng(r) (r) vegng(r) (r) vegng(r) (r) (r)	Administration Route
Setting Study Information Study Information Study Information Study Name Feb3 Study Information Study Name Feb3 Study Information Ammatis Number of Animalis Study Information Animalis Number of Animalis Study Information Animalis	Route
Study Name Feb3 Study ID Feb3 Animals Number of Animals Image: Set Ape Unit week(s) - Copp Paste Detect Detect - Animal (m) Weightgl (*) Pump ID & Cal. Factor Set Ape Animal Separate Animal Separate A00227 25 400227 1090 Male 8 mouse 105 1 400290 25 400299 1139 Male 8 mouse 105 1 400302 25 40029 1131 Male 8 mouse 105 1 400302 25 40029 1131 Male 8 mouse 105 1 400302 26 400302 1131 Male 8 mouse 106 1 40303 26 400302 1132 Male 8 mouse 106 1	Route
Asimats Number of Animats E Set Age Unit week(s) Copy Paste Detect	Route
Oper Paste Detect Animal Strain Animal ID Weight(g) (*) Pump ID & Cal, Factor Sex Age Animal Strain 400297 25 400297 109 Male 8 mouse 8.6 1 400297 25 400298 1139 Male 8 mouse 8.6 1 400292 25 400298 1137 Male 8 mouse 8.6 1 400290 25 400298 1147 Male 8 mouse 9.6 1 400390 25 400390 1137 Male 8 mouse 9.6 1 400390 25 400390 1123 Male 8 mouse 9.6 1	Route
Animal D Weight(g) (*) Pump (D) A Cal. Factor Sex Age Animal Stan (*) 002927 25 400297 1090 Male • 0 mouse • 0 400292 25 400297 1090 Male • 0 mouse • 0 mouse • 0 400290 25 400291 1147 Male • 0 mouse • 0 -<	Route
Armini ID Weightg(1) Pump ID A Cal. Factor Sec Age Animal Stan (1) 440297 25 440297 1090 Male 0 mouse 0.6 1 400290 25 440297 1090 Male 0 mouse 0.6 1 400290 25 400291 1147 Male 0 mouse 0.6 1 400290 25 400302 1147 Male 0 mouse 0.6 1 400390 25 400302 1147 Male 0 mouse 0.6 1 400390 25 400302 1131 Male 0 mouse 0.6 1	Route
4X0298 25 4X0298 1139 Male • a mouse • b6 • a 4X0299 25 4X0299 1147 Male • 8 mouse • b6 • 1 4X0290 25 4X0299 1147 Male • 8 mouse • b6 • 1 4X0302 25 4X0303 1131 Male • 8 mouse • b6 • 1 4X0303 25 4X0303 1123 Male • 8 mouse • b6 • 1	ip 👻
4X0290 25 4X0290 1147 Male = 0 mouse = 06 = 0 4X0302 25 4X0303 1131 Male = 0 mouse = 06 = 0 4X0302 25 4X0303 1123 Male = 0 mouse = 06 = 0	
4X0302 25 4X0302 1131 Male ▼ 8 mouse ▼ b6 ▼ I 4X0303 25 4X0303 1123 Male ▼ 8 mouse ▼ b6 ▼ I	ip 👻
4X0303 25 4X0303 1123 Male • 8 mouse • b6 • i	ip 🔫
	ip 🔻
4X0304 25 4X0304 1082 Male 🕶 8 mouse 🖛 b6 🖛 ii	ip 👻
	ip 🔫
4X0305 25 4X0305 1180 Male • 8 mouse • b6 • ii	ip 💌
4X0306 25 4X0306 1123 Male 🕶 8 mouse 🕶 b6 🖛 ji	ip 🔻
uuulo 2o 4uuulo 11z3 µaae <u> </u> 38 mouse ¥]po ¥]l	ip
««Back	Next >>

Required Fields: ——	Examples:)
Number of Animals	8)
Detect	Click "Detec	t" button assign pump
Animal ID	4X0302)
Weight	25 g)
Age	8 weeks)
Sex	Male)
Species	Mouse)
Strain	B6)
Administration Route	i.p.]

Use copy and paste as required to fill fields like weight, age, After completing all the fields, Next>> . If <<Back to previous menu, pumps will need to be detected again.

RECID Hanagement : RED InfusionProfiled KVO setting		
NVO Setting Flow Rate (Julit Animal List Animal List 300 304 305 205	Anna C. Loging Carlos (San Car	
	Comma Aust. (eany minute - induston Pathodi >>	Make sure to check "Enable" box in Dead Volume Setting.
Rec	uired Fields: — Examples:	

User's Manual Pg.**28-30/**Pg.**34-37**

nequireu ricius.	Examples.	J	
KVO Flow Rate	1 uL/hr(s))	
KVO Duration	72 hrs]	
Dead Volume Settings (Fill in the catheter diameter and I		Length	25 mn
Flushing-rate for Dead \	/olume 10 uL/hr)	

► Flushing Duration is automatically calculated

After completing all the fields, Start KVO

To confirm when KVO starts correctly, check the information and the color of the Pump Status Column.

No color Standby

Red Color Application software is ready to send the schedule to UCD-300. ow color UCD-300 has been received the schedule from application software. reen color Pumps have received KVO schedule and programming completed. KVO will start within 1-2 min.

Same process and color coding for Administrating (and Flushing)

ECIO Management	Software IMS-300				-			-	a 🖂 🔜	ŋ	-
E) InfusionProfile	() NetworkSetting())	Menitor(M)	Customize(Z) Registra	rfor(B) Language),	Help(H)		Language(L)	Help(H)		Languaget	Help(H)
KVO setting				0-30	~		-200	~		-200	
KV0 Setting			KVO Start Button	KVD Abort Buffs	n KWO Side		D Abort Button	KVO SHIP		D Abort Butto	KWO SHIP
									\sim		
Flow Rate (ull	rj 0.1 🗄 Duratio	in fires 0.5	E KVO Stat	AbortAl		(1)	AbortAl		(2)	AbortAll	
Flow Rate (ull	r) 0.1 🗄 Duratio	in (hris) 0.5	 KVO Start 	AbortAl) 🗆	(\mathbf{l})	Abort4		(2)	AbortAl	
	r) 0.1 🐑 Duratio	PumpID	KVO Stat		Pump Status		AbortAll	Pump Status	(2)	AbortAll	Pump Status
Animal List				ng KVO Abort Bullion					(2)		
Animal List Animal ID	Weight [g]	PumpID	Dead Volume Settin	ng KVD Abort Bullen	Pump Status	(1)	Nort Button		(2)	Noort Button	Pump Status
Animal List Animal ID 400297	Waight [g]	Pump ID 400297	Dead Volume Settin Dead Volume Settin	ng KVD Abort Bullen ng Abert ng Abert	Purrip Status	(1)	Nort Button Abort		(2)	Nort Button Abort	Pump Status Finished
Animal List Animal ID A00297 400298	Weight [s]	Pump ID 400297 400298	Dead Volume Settin Dead Volume Settin Dead Volume Settin	ng KVO Abot Balton ng Abot ng Abot ng Abot	Parrip Status KNO KNO	(1)	bort Button Abort Abort	Pump Status KNO KNO	(2)	Abort Button Abort Abort	Pump Status Finished Finished Finished Finished
Animal List Animal ID 4002997 400298 400299	Weight [g] 25 25 25 25	Pump1D 400297 400298 400299	Dead Volume Sells Dead Volume Sells Dead Volume Sells Dead Volume Sells	ng KVO Abort Button ng Abort ng Abort ng Abort ng Abort ng Abort	Perrip Status KNO KNO KNO	(1)	Abort Button Abort Abort Abort	Pump Status KNO KNO	(2)	Abort Button Abort Abort	Pump Status Finished Finished Finished
Animal List Animal ID 400200 400200 400200 400200	Weight [g] 25 25 25 25 25	Pump1D 400297 400298 400299 400302	Dead Volume Sellin Dead Volume Sellin Dead Volume Sellin Dead Volume Sellin Dead Volume Sellin	ng KVO Abort Button ng Abort ng Abort ng Abort ng Abort ng Abort ng Abort	Perrip Status KNO KNO KNO KNO KNO	(1)	Abort Button Abort Abort Abort Abort	Pump Status KNO KNO	(2)	Abort Button Abort Abort Abort	Pump Status Finished Finished Finished Finished
Animal List Animal ID 4002997 400299 4003002 4003002	Weight [g] 25 25 25 25 25 25 25	Pump ID 400297 400298 400299 400302 400303	Dead Volume Setti Dead Volume Setti Dead Volume Setti Dead Volume Setti Dead Volume Setti Dead Volume Setti	ng KVO Abort Button ng Abort ng Abort ng Abort ng Abort ng Abort ng Abort ng Abort	Pemp Status KNO KNO KNO KNO	(1)	Noot Button Abort Abort Abort Abort Abort	Pump Status KNO KNO	(2)	Abort Button Abort Abort Abort Abort	Pump Status Finished Finished Finished Finished Finished

(1) KVO programming started with some pumps started and some in process 2) All pumps KVO step programmed

3 KVO step Finished/Completed and ready for programming

	Step7:
	Step8:
	Step9:
	Step10:
	Step11:
	Step12:
	Step13:
	Step14;
	Step15:
	5 Comms Avai
	Infusio
ſ	PRECIO Management Sci Discussion of the science
	File(E) InfusionProfile()
	Infusion



Red Adn Set

Once all pumps have been assigned a Group ID and Starts time, select/click Next>>



Group Profile:

neral Inform Group ID G		2 00	mpound	ID An	gll 🚺	Infusio	n ul/hr (Flow Ra	te) 🔻 🗗 Time h	r(s) -
oncentration	1.0	1	[ug/ml]	W w	eicht Rance	20.0	25.0 🗘	Dose Range	~
					Repeat Set	ting			
· · · ·	Infusion A		Duratio		Repeat Star		Repeat End	Start Time	End Time
Step1:	10.0	÷	1.0	÷	✓	15		00:00:00	
Step2:	0.0	÷	4.0	0		0			
Step3;	7.0	÷	1.0	-		0			
Step4:	0.0	-	4.0	-		0			
Step5:	5.0	÷	1.0	-		0	3		
Step6:	0.0	\$	13.0	-		0			15.00:00:00
Step7:	10.0	-	1.0	-		0		15.00:00:00	15.01:00:00
Step8:	0.0	÷	0.0	\$		0 😫		15.01:00:00	15.01:00:00
Step9:	0.0	1 V	0.0	A V		0			
Step10;	0.0	A.	0.0	×		0			
Step11:	0.0	×	0.0	×		0			
Step12:	0.0	×	0.0	×		0			
Step13:	0.0	A	0.0	A V		0			
Step14:	0.0	-	0.0	×		0			
Step15:	0.0	×	0.0	×		0			

n Protocol setting:

Softwa	re DNS-300					(a) (ii)	
) Ne	tworkSettingW	Monitorial (Customize(2	Registratio	n(E) Language(L)	Help(H)	
۱F	rotoc	ol	àr se		-		
ion 183		Study ID Feb3		Number o	f Groups 6		
ton reup 5	0	impound ID / N	ame abc	Cor	centration 1	ugimi	
61 2	~ 25	Dose Ra	nge 0.005	~ 0.4	[upRofit]		
	Group 5	-			tion Start Time 13 14:00 0	iper 0 🕀 (miri)	
mu	Pump ID	Group ID	Flow Rate [ulht]	Total Dead Volume [ul]	Flushing Start Time	Administration Start Time	
	410297	Group1	10.0	10.752	2015/02/03 12:55	2015/02/03 14:00	
	400298	Group1	10.0	10.752	2015/02/03 12:55	2015/02/03 14:00	
	400299	Group2	10.0	9.564	2015/02/03 13:02	2015/02/03 14:00	The second the star officient times from
	410302	Group3	10.0	9.564	2015/02/03 13:02	2015/02/03 14:00	Ensure that sufficient time for
	400303	Group4	10.0	8.376	2015/02/03 13:00	2015/02/03 14:00	
	400304	Group4	10.0	8.376	2015/02/03 13:09	2015/02/03 14:00	the flushing step to be complet
	410305	Group 5	10.0	7.199	2015/02/03 13:15	2015/02/03 14:00	the hushing step to be complet
	400308	Group 6	10.0	7.188	15/02/03 13:18	2015/02/03 14:00	before Administration Start time
							Delore Auministration Start time

quired Fields:	Examples:
ministration Start Time	2015/02/05 14:00
t/Assign Group ID to each animals.	Group 1

Set/Assign Group ID/Group Profile:

- Infusion Profile and Administration Start Time.
- ▶ Based on Flushing rate and Duration from Dead Volume Setting, Flushing Start Time is Calculated
- ▶ Make sure that there is sufficient time for pumps to be programmed and
- that the **Flushing Start Time** calculated is not in the past.

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	6	nfusion Amount	Duration
- Examples:	Step1:	10.0 🖨	1.0 🖨
Group B	Step2:	0.0	4.0 🚖
	Step3:	7.0 🖨	1.0 🖨
Ang II	Step4:	0.0	4.0 🖨
1.0 ug/ml	Step5:	5.0 🚔	1.0
20.0-25.0g	Step6:	0.0	13.0 🚔
	Step7:	10.0 🚔	1.0 🚔

6 Select unit for Infusion, Time Units and Comms Avail.

6 Program required steps with infusion amount, Duration, No. of Repeats, Repeat Start and End as required

7 Repeat Start Checkbox Step1, Repeat Stop Checkbox Step6, Times 15

Required Fields

Compound ID

8 Concentration

4 Weight Range

🚺 Group ID

Repeat Setting 🕖 Repeat Start Times 🗹 15 ≑ Dead Volume Setting

Outlet Tube (ID: 0.55 mm)

Total Dead Volume

Flushing Duration

OK

Flushing Rate for Dead Volume

Dead Volume

Inner Volume

Animal ID : c

Volume

KVO within Administration Step in Infusion Profile/Gr (completely pre-programmed)



When using the application to calculate the dead volumes, open Dead Volume Setting and input the correct Diameter and Length of catheter. Record the Dead Volumes, Dead volume flushing-rates and Flushing durations. Dead volume flushing-rates and durations required for Group ID/Group Profile programming. They will be used in <Step 3> in Group ID/Infusion Profile

Study Name Feb	3	Study ID	Feb3	Study Start	StartAll	Study Stop AbortAll			tart	StartAll	Study Stop AbortAll
Group1	Group2	Group3	Group4	Group 5	Group 6		U			Group 6	
Animal ID	Weight [g]	Pump ID	Administration Start Time	Start	Abort	Status		1		Abort	Status
4)(0297	25	4X0297	2015/02/03 14:00	Start	Abort	Programming			rt 🗌	Abort	Administering
4X0298	25	400298	2015/02/03 14:00	Start	Abort	Programmed		- 11	rt i	Abort	Administering

1) On Next>> Animals/Pumps are separated into Group ID Tabs. Start All to start programming pumps with protocols.

(2) All Animals/Pumps programmed (Light Green and Green) prior to Flushing Start

Time will start administrating as programmed. Pumps will now start to infuse as programmed. Pumps are ready for implantation when pump status is Green (Administering)



IPRECIO Management Sc Fee(2) InhalemProfes(0) KVO setting KVO Setting For Rate Matri	NetworkSetting)() Mond Colored Colored Color Colored Colored Color Colored Color Colored Color Colored Color Colored Color	KVO Start Button	Languaget,) KVO Abort Button AbortAll	HW4023	Infusion Protocol option is recommended in this case.
Annal List Minul D a b c c d d d e e e e n annal List	Weightig Purr 25 4400 25 4400 25 4400 25 4400 25 4400 25 4400 25 4400 25 4400 26 4400 27 4400 28 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 29 4400 20 4400	2 Dead Wearne Setting 3 Dead Volume Setting 4 Dead Volume Setting 5 Dead Volume Setting	Aberi Aberi Aberi Aberi Aberi	Pung Stato (Sano Sy Bana Sy Bana Sy Sano Sy (Sano Sy Sano Sy Sano Sy Sano Sy Sano Sy Sano Sy Sano Sy Sano Sy Sano Sy S	If KVO Skip checkbox selected № , Infusion Protoco is greyed out.
	Click Infu	sion Protocol	to sl	kip KVO ar	d any dead volume calculation

2. Alternatively. Skip KVO by checking the KVO skip box and click Next>>

Calculate the dead volume using the application software or excel file

which is provided in installation CD. Then input the flushing information into Step3.

GroupID Gr	tup C	c	omeound I) abc		int,	sion.	uthi (Flor	Rate	• (
Concentration	0.1	0	(ug/m) +	We	oht Range	20.0	÷	~ 25.0	-	Dos
куо					Repeat S					
		Amount			Repeat S			Repeat Er	d	Sta
Ship1;	0.5	0	72.0	0		٥	÷			00:
Step2;	0.0	۵	1.0	\$	E	0	÷			3.0
Shp3:	1.0	\$	1.1	\$	13	0	÷			3.0
Step4;	0.0	\$	0.5	\$		0	÷			3.0
Step5:	10.0	-	1.0	÷	2	15	÷			3.0
Step6:	0.0	÷	4.0	÷		0		13		
Step7:	7.0	-	1.0	-		0				
Step8:	0.0	+	4.0	-		0				
Step9:	5.0	*	1.0	-		0				
Step10:	0.0	÷	13.0	-		0		2		
Step11:	10.0	÷	1.0	-		0	0			18
Step12:	0.0	+	0.0	-		0	0			18
Step13:	0.0	÷	0.0	1		0				
Step14:	0.0		0.0	÷		0				
Step15;	0.0		0.0	1e		0				

Required Fields: —

Step1: KVO Flow Rate Step2: Exchange time Step3: Flushing time

For example, Infusion Protocol setting from "4. Infusion Protocol Setting" Step 1: 10 ul 1 hour, Step 2: 0ul 4 hours...

> If Dead Volumes, Flushing-rates and durations are shown in administration step, it will be necessary to uncheck Enable in Dead Volume Setting for those pumps/animals Alternatively, use Infusion Protocol option.

Exchange Time: A stop is usually programmed so that pumps can be filled accurately and this would give most accurate results.

oup	ID	\prod		User's Manual Pg. 36-37
oup			-	Pg. 36-37

ing				
		6	uL	
	(ID:0.55mm)		uL	
	Inner Diameter	0.55	mm	
	Length	20	mm	
9		10.752	uL	
Dead Volume		10	uL/hr	
		65	min	

Example from Excel File Provided for the Dead Volume Setting calculations

Make calculations as appropriate. If all animals have the same dead volumes and have the same dead volume flushing rate, then only one calculation required. If not, calculate as required.

	- X -
• Time [t	u(s) •
lose Range	~ -
Start Time	End Time
00:00:00	3.00.00.00
3.00:00:00	3.01:00:00
3.01:00:00	3.02.06.00
3.02:06:00	3.02.36.00
3.0236:00	
	18.02.35:00
18.02.38.00	18.03:36:00
18.03.36.00	18.03.36:00
ОК	Cancel

Add the KVO into the group profile: step1-3

	Examples:	
е	0.5 uL/hr	72 hrs
e	0 uL/hr	1 hr
	1 uL/hr	1.1 hrs

Step4: Drug Administration Infusion Step will start from here.