



User Manual

ORI-COLLECTOR

with LELY Robot A3, A3 Next and A4 Using 90 vials

Version 1.09



Historial Version

Date	Version	Motif
1/10/2012	1.0	Initial Release
11/02/2013	1.07	Version with maintenance
19/09/2013	1.08	Version with new maintenance
20/11/2013	1.09	Version last renumbering



Contents

1.	INTI	RODUCTION	4
1	l.1.	INFORMATION ABOUT THIS USER MANUAL	4
1	L.2.	MANUFACTURER'S ADDRESS	4
1	L.3.	SALES AND AFTER-SALES SERVICE	4
2	CAF		
Ζ.	SAF	ETY	4
2	2.1.	The User's Responsibility	4
2	2.2.	SAFETY SYMBOL	5
2	2.3.	SAFETY INSTRUCTIONS	5
R	DES		5
5.	DLJ		
3	3.1.	FUNCTIONS OF THE ORI-COLLECTOR	5
3	3.2.	DESCRIPTION OF COMPONENTS	5
3	3.3.	FUNCTIONING	6
3	3.4.	SPECIFICATIONS	8
3	3.5.	PLATE	8
4.	INS	TRUCTIONS OF USE OF THE ORI-COLLECTOR	9
,	1 1	ASSEMBLY OF THE ORL COLLECTOR	0
2	+.1. 11	ASSEMBLY OF THE URI-COLLECTOR	9 0
	4.1.	 Preparation of the samples Unlocking the filling system 	9 10
	4.1. 1 1	 Onlocking the Junity System	12
	4.1.	A Levelling	12
	4.1.4 1 2		12
_	+.2. 1 2		16
-	τ.j. Δ 3	1 Pneumatic connection	16
	4.3.	 Milk hose connection 	17
	4.	3.2.1 Pausing the milk connection by clicking Stop	. 17
	4.	3.2.2 Waiting for the milking to finish	. 17
	4.	3.2.3 Activating sampling	. 18
	4.	3.2.4 Opening the sampling valve	. 18
	4.	3.2.5 Connecting the Ori-Collector	. 19
	4.	3.2.6 Connecting the outlet bend of the terminal unit	. 19
	4. 1 /	3.2.7 Connecting the Ori-Collector	. 19
2	+.4. лл	PROGRAMMING THE SAMPLING	21 21
	4.4. ЛЛ	 Programming with the X-Link Robot console Activation of sampling with TAC 	21
	 15		22
_	1.5. 1.6		24 24
Z	17	STOPPING THE SAMPLING	29
2	1.8.	EXPORTING ROBOT DATA	32
Z	1.9.	DATA PROCESSING WITH THE DATA COLLECTED	33
Z	1.10.	EDITING THE LIST OF SAMPLINGS	36
_			~-
5.	CLE	ANING AND MAINTENANCE	37
5	5.1.	WASHING AFTER INSPECTION	37
5	5.2.	CLEANING OF THE FILLING SYSTEM AND HOSE	39
5	5.3.	CLEANING THE BOX AND CROWN	39
5	5.4.	REMOVING THE SILICONE HOSE FROM THE FILLING SYSTEM	40
5	5.5.	Removing the steel plate	44
5	5.6.	CARE AND MAINTENANCE	47
5	5.7.	MALFUNCTION OF THE ORI-COLLECTOR	47
6.	LIST	OF PARTS	48



1. INTRODUCTION

1.1. Information about this user manual

The manufacturer reserves the right to modify the manufacturing of the Ori-Collector in the case of improvement.

All reproductions, translations or copies require the manufacturer's consent. This manual shall always be within reach of the Ori-Collector's user.

1.2. Manufacturer's address

Sayca sl c/Rumania, 5 nave d-15 –Polígono Industrial Inbisa Alcalá I 28802 - Alcalá de Henares – MADRID (Spain) Tel.: (0034) 645811182

1.3. Sales and After-sales Service

Sales and After-sales service is provided by:

Comatel Maison du lait 42 rue de Chateaudun 75009 Paris

2. SAFETY

2.1. The User's Responsibility

The design and realization of the Ori-Collector took into account the risk of danger in accordance with the appropriate standards, we guarantee complete security. This security can only be achieved by the user in accordance with the safety instructions. It is the responsibility of the user to ensure that the following measures are implemented:

- All persons who use the Ori-Collector must have read the manual.
- Users of the Ori-Collector shall always have access to the manual.
- Safety instructions shall always be adhered to.
- The product can only be used within the environment described.
- Safety devices should be checked regularly.
- Maintenance shall only be carried out by qualified personnel.
- Safety symbols, labels and stickers on the Ori-Collector should be replaced if lost or illegible.
- Untrained personnel cannot use the Ori-Collector. Prior training should always be provided.



2.2. Safety symbol



Any use of the Ori-Collector must be performed under maximum safety conditions. The warning sign alerts the user of potential hazards s/he may encounter.

2.3. Safety instructions

- Prior to any utilization or maintenance operation, please refer to the user manual for the Ori-Collector.
- Ensure compliance with safety measures when using the Ori-Collector.
- Do not open or disassemble the Ori-Collector during use.
- Safety devices must remain in place.

3. DESCRIPTION OF THE ORI-COLLECTOR

3.1. Functions of the Ori-Collector

The Ori-Collector allows you to retrieve a sample of milk for each cow that is milked by means of a milking robot (A3 type and above).

The System provides 3 functions:

- 1. the transport of milk from the point of collection of the milking robot;
- 2. filling a calibrated milk sample;
- 3. the movement of the turntable that contains 90 samples.

3.2. Description of components

Figure 1: Main parts of the Ori-Collector



1	Protecting case	5	Compressed Air Hose
2	Milk intake point	6	Cylinder for rotating the Crown
3	Filling nozzle	7	Buffer vessel for the milk
4	Drive Crown and 90 bottles support	8	Filling activating cylinder.



The Ori-Collector sampler is a rotating system in which the set of samples is in motion, in order to maintain the filling system fixed.

Its main parts are presented in Figure 1.

The system (1) is easily transportable, and must be supplied with compressed air (5). It consists of a double crown (4), the upper part in stainless steel, the bottles, and the lower part in PVC which serves as a support.

The upper part is crenellated, allowing it to move by means of a pneumatic cylinder (6). Milk (2) taken from the milking robot is sent to a calibrated buffer tank (7), the cylinder (8) is activated to carry out the filling of the bottle via the filling nozzle (3).

3.3. Functioning

The system works in 5 stages:

- 1 Waiting for the sample
- 2 Transport of milk
- 3 Sample calibration
- 4 Filling the bottles
- 5 Moving the samples

The system uses the robot controls by compressed air, and transports the milk by gravity into the sampler.

25

С

Air valve closed

Pounc MAY & y

Step1: sampling device in stand by



- Mixing of milk during milking
- Homogenization at the end of
- Homogenization at the end of milking. (opening of milk valve)

07/12/2012

Step 2: Routing of milk





step 3: Calibration of sample





- Activation preassured air (Min 20s)
 - Opening valve for filling of sample
 - Activation cilinder for displacenet of crown gear.
 - 07/12/2012



Projet SAYCA / FCEL 5





3.4. Specifications

Capacity	90 bottles, 30 /40 ml
Feed	Compressed air (Max : 6 Bar, Min : 4 Bar)
Dimensions	600x570x250 mm
Weight	15kg

3.5. Plate

The plate is attached on the side of the handle.



For any requests, please quote the serial number of the device.



4. INSTRUCTIONS OF USE OF THE ORI-COLLECTOR

4.1. Assembly of the Ori-Collector

4.1.1. Preparation of the samples

The system is circular:

Outer ring	de 1 à 30
Middle ring	de 31 à 60
Inner ring	de 61 à 90







Diagram showing the loading of the bottles



The crown is engraved with the corresponding sample numbers. It is important to number the bottles before filling the crown.



4.1.2. Unlocking the filling system





The system has a locking system for the filling of the bottles

Pull the pin upwards to activate the cylinder for the filling of the bottles

In order to avoid soliciting the **silicone hose** during the stages of transport and storage, a pin has been designed to bedraggle the system.



Once the pin is removed, place it in the hole provided for this purpose



Please insert this pin in the hole when disassembling the Ori-Collector



4.1.3. Positioning in place of the Ori-Collector

It is recommended that the Ori-Collector is positioned next to the Robot, as close as possible.





After handling the Ori-Collector, please make sure that the protecting cover is put in place.

4.1.4. Levelling

Levelling is achieved by means of **adjustable feet** which are controlled through the **level indicator**







4.2. Configuration of the Ori-Collector on the robot

The sampling parameters are changed on the X-Link robot console.



Please follow these steps:











The following screen appears





The real number of bottles will be 90 Maximum with these settings (settings specificity of 96 bottles)

The final changed screen will look like this:

Registers		
Admission et destination après traite	ns Flacons	Edition
Procedure de traite Préparation traite Traitement pré-traite US Branchement gobriet	- Numero de casier 1	Edition
Decrechage du gobelet Pulverisation trayons Separation du lait Cohantilionnage de lait	Numère du flacon dans le casier	Edition
Alimentation Nettoyage du robot Alarmes système Affichage	Demiere Tacon dans le casier 90	Edition
B Adglages avancés	- Nombre de flacons vides pour alarme	Edition
	Temps de remplissage flacon d'echantillon (Shuttle) 25 sec.	Editor
	Jemps de remplissage flacon d'échantillon (une flacon) 20 sec.	Edition
Protessus Reglages Test Indications	T4C Reports T4C Systems	0.0

Once the settings have been defined, it is essential to completely turn off the robot in order to apply the new parameters to the system.

It is necessary to check the settings prior to every new use.



4.3. Connection of the Ori-Collector

4.3.1. Pneumatic connection

Please connect the compressed air feeding hose to the Ori-Collector



Connect it to the Ori-Collector and to the robot









4.3.2. Milk hose connection

To accomplish this operation, please activate the opening of the milk grip of the robot on the robot screen.



Statut Astronaut Statut opérationnel	"somestatus"	Cliquer sur	le hop »
Progression			Début
			Fermeture
Installations			
Puissance disponible Pression d'air disponible	"unknown"		Réinitialiser tou
Eau	"unknown"		
Réseau	"unknown"		
Info Astronaut			Interface utilisateur
Numéro de série -			Version 02.29 B(21)
Nombre de traite ·		Changer l'affichage	Date Jul 6 2009
Version du logiciel -		Cliau	er sur la
	1.0.0	T tro flòob	

4.3.2.2 Waiting for the milking to finish

Statut Astronaut Statut opérationnel Progression	"somes	talus"		
	Appuyer s icône	ur cette	1	
				1
Installations				
Puissance disponible	"unkno	wn"		
Fression d'air disponible	"unkno	wn wn		
Réseau	"unkno	wn"		
Info Astronaut			Interface	8
Numéro de série			Version	
Nombre de traite		Changer l'affichage	Date .	
Version du logiciel			Heure 10.10.40	-



4.3.2.3 Activating sampling

Dispositif d'éc Utiliser shuttl	chantillonna e	ge		L	Non		0.	ai
			Appuye puis su	er sur Ir « su	« oui » iivant »	K	/	
							/	

4.3.2.4 Opening the sampling valve

			Арр	uyer sı	ur « C	Duvrir »		
Vanne éc	hantillonnage	Ferm	er				Ouvrir	
Retou								Suivant



4.3.2.5 Connecting the Ori-Collector



Place the milk hose into the valve.

4.3.2.6 Connecting the outlet bend of the terminal unit



4.3.2.7 Connecting the Ori-Collector



Place the milk hose in the hole that is protected by a rubber ring





Final installation with the Ori-Collector



Long milk hose:

Recommended measurements: 1.5 to 2 metres **maximum**.



After handling the Ori-Collector, please make sure that the protecting cover is put in place.



4.4. Programming the sampling

4.4.1. Programming with the X-Link Robot console

Return to the X-Link Robot console



The following screen appears:

You can change the v Select change Take the good Press Enter	value	-	Modification
Otherwise press Next	Non cu	illèse Numéro de bouteille	
Position de dép	att 1	12	Modification
Protion de fin	90	1 90	Modification
Nonibre de Reci	one vides pour alieme 2		Medification
Pasamètres d'éc Temps de remp	hertilionnage issage flacon d'échantikon 25		Modification
You can	adjust the filling time		/
Otherwis	e press Next		Suivant
Processeus Rég	lages Test Indications Systèm	ne T4C Echanillonnage	10.53

ī



1 Robot		Laboratoire	3 Ro	obot	Laboratoire	4 Ro	obot	Laboratoire
Robot	Panier	Ordre Panier	Robot	Panier	Ordre Panier	Robot	Panier	Ordre Panier
	1	1		1	1		1	1
1	2	2	1	4	2	1	5	2
	3	3		7	3		9	3
				2	4		2	4
2 Robot		Laboratoire	2	5	5	2	6	5
Robot Panier		Ordre Panier		8	6		10	6
	1	1		3	7		3	7
1	3	2	3	6	8	3	7	8
	5	3		9	9		11	9
	2	4					4	10
2	4	5				4	8	11
	6	6					12	12

To make the numbering of the baskets easier, we propose the following method:

Please indicate the robot number on the sampler by means of a paper placed on the plastic cover.

Please note the numbering is very important.

The following screen appears:

Le Shuttle fonctionne Les vaches n	e sont pas marquées pour échantillonnage
Activation de la vache	
	Marquer toutes les vaches
	Appuyer sur « Marquer toutes
	les vache »
Retour	Appuyer sur « OK »
neiuu	
églages Test Indications	Système T4C Entretien Echantillonnage 1 1615

4.4.2. Activation of sampling with T4C

On the farming PC, open the application T4C 3.0. Click on the tabs following this order:

- Data entry (1)
- Settings (2)



- Milking (3)

- General (4)

Click on the line « herd » within the column « Sampling method » (5) and select the sampling settings (6)

-	Lactation Traite	Intar	tions Tâc	he de tri	Activité E	OLM Paran	nètres	-			 Innovators in agricu 	liture
🔊 Démarrage	iénéral Pré-traite	Pendant	la traite	Post-traite	Accès à l'	Astronaut	Attent	ion				_
Entrées de données		Colostrum (Jour)	i Destination lait	Destination lait en séparation	¹ Destination colostrum	n Mét d`échani	hode tillonnage	Tray (vons à traire Oui/Non)	Réinitialisation positions des trayons après tarissement (Oui/Non)	Période d`apprentissage (Oui/Non)	Traite so surveillar (Oui/Nor
Animal	Recherch						-	AvG	AVD ArG ArD			
Groupes	Troupeau	7	Tank à lait 1	M4Use	M4Use	Toutes les	5			Qui	Non	Non
Bibliothèques	1) Primipares	7	Tank à lait 1	M4Use	M4Use	Toutes les	traites			Oui	Non	Non
Paramètres	1 3) Multipares	7	Tank à lait 1	M4Use	M4Use	Toutes les	traites			Oui	Non	Non
6	5) Traites immédiates	7	Tank à lait 1	M4Use	M4Use	Toutes les	traites			Oui	Non	Non
A second s	6) 2 traites	7	Tank à lait 1	M4Use	M4Use	Toutes les	traites			Oui	Non	Non
Analyses/Listes	1 7) Traites matin/soir	7	Tank à lait 1	M4Use	M4Use	Toutes les	traites			Oui	Non	Non
	9) Vaches taries	7	Tank à lait 1	M4Use	M4Use	Tou						
Exportation de données	11) Veaux	7	Tank à lait 1	M4Use	M4Use	Tou	Paramèt	res	6			
	13) Génisses	7	Tank à lait 1	M4Use	M4Use	Tou	hamps étiq	uette	-	: Méthode d	d'échantillonnage	
2	15) Taureaux	7	Tank à lait 1	M4Use	M4Use	Tou						
Configuration	16) Animaux sortis	7	Tank à lait 1	M4Use	M4Use	Tou) Par de	éfaut	Troupeau	: Toutes les	traites	
States and the second	20) Hors critères	7	Tank à lait 1	M4Use	M4Use	Tou						
Maintenance						0	Troup	beau	Troupeau	: Toutes	les traites 💌	
										Toutes 1 échar	es traites	
Votre Guide										2 échar	tillon/vache	rmer

The Ori-Collector must be in place and the activation must be performed on the Xlink before moving to the next stage!

In order to activate the sampling on T4C 3.0:

- Click on « Post milking » (1)
- Next, click on the column « Sampling (yes/no) » of the line « Herd » (2)
- Select the settings and register (3)

	Lactatio	n Traite	Alim	entati	ions	Tâ	che de	e tri	Acti	/ité	DLM	Paramè	tres	-	Innovators in agriculture -
of Démarrage	Général	Pré-traite	Pen	dant la	a trait	e	Post-t	rait	1	sà	l`Astro	onaut	Attention		
Entrées de données				Nomb traite	re de ment		Dui	rée tra (se	aitem ec)	ent	Ec	chantillo (Oui/N	nnage lon)	Nettoyage équipemen traite	t de Prioritaire alimentat (Oui/Non)
	R	echerch	AvG	AvD	ArG	ArD	AvG	AvD	ArG	ArD		-	-		
Animal	Troupeau		1	1	1	1	0,1	0,1	0,1	0,1	Non	6		PURA - Lelywash	Non
Animai	1) Primipare	is .	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Groupes	3) Multipare	s	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Bibliothèques	5) Traites in	nmédiates	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Paramètres	6) 2 traites		1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
	3 7) Traites m	atin/soir	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Analyses/Listes	(± 9) Vaches taries	aries	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Printing according	11) Veaux		1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
The second se	13) Génisse	s	1	1	1	1	0,1	0,1	0,1	0,1	Non	Para	mètres		
Exportation de données	15) Taureau	лх	1	1	1	1	0,1	0,1	0,1	0,1	Non	-	direction of the		. The thereas
	16) Animaux	x sortis	1	1	1	1	0,1	0,1	0,1	0,1	Non	Champ	setiquette	- 3	: Echantilonnage
2 Configuration	20) Hors cri	tères	1	1	1	1	0,1	0,1	0,1	0,1	Non	0	Par défaut	Troupeau	: Non
	1000														
Maintenance												۲	Troupeau	Troupeau	: O Oui
															Enregistr Fermer

If the sampling process is correct, the message « Shuttle connected » will appear in the peripheral indications of T4C 3.0. To confirm this, go to:

- Analysis/Lists (1)
- Peripheral indications (2)
- Check that the indication is present (3)



Analyses/Listes	101	Astronaut	08-03-2010 11:00:33	Rapport	Dispositif de chauffe: Adjonction Astri-L
	101	Astronaut	08-03-2010 10:42:00	Rapport	Dispositif de chauffe: Adjonction Astri-L
	101	Astronaut	08-03-2010 9:46:30	Rapport	Dispositif de chauffe: Adjonction Astri-L
Tableau de bord	101	Astronaut	08-03-2010 9:45:58	Rapport	Nouveau casier Shuttle (numéro de casier 1)
rubledd de bord	101	Astronaut	08-03-2010 9:45:58	Rapport	Shuttle connecté (numéro de casier 1)
Rapports	101	Astronaut	08+03+2010 9:23:26	Rapport	Dispositif de chauffe: Adjonction Astri-L
X Link	101	Astronaut	08-03-2010 8:19:36	Rapport	Dispositif de chauffe: Adjonction Astri-L
Indications périphériques	2 101	Astronaut	08-03-2010 7:42:58	Rapport	Nettoyage : PURA & rinçage (local), Sulvre séparation u lait

4.5. Recovery of the milking

On the touch screen at the stall, allow again the access of cows to the robot

Progression					<u> </u>
[Clique «Traite	er sur l'ic e »	ône	-1	J 1
					1
Installations	-				
Puissance disponible	ŧ.	"unknow	n"		
Pression d'air dispon	ble	"unknow	n''	1	
Eau		"unknow	n"		
Réseau		"unknow	n"		1
Info Astronaut					A Y
Numéro de série				Version	×
Nombre de traite	-		Changer l'affichage	Date	
				Неште	

Check that the control works correctly (it is recommended to wait for the passage of a few cows). To do this, check the presence of milk in the first sample. Note the time of passage of the first cow (the time shown on the robot) and the identity of this cow.

4.6. Reloading the Ori-Collector

Reload the Ori-Collector according to the usage of the robot (as a reference, 7h for a usage of 8 cows per hour).



Once the first 80 samples have been taken (at an average passage rate of 6 to 8 cows per hour):

- Stop the operation of the robot by blocking the access doors for the cows on the X-link, as explained in section 3.2.1

- Wait until the milk reception unit (jar) is empty and the cow is released.

- Remove all the bottles from the Ori-Collector, loading them in the CL basket.

Caution, please follow the order of the bottles from position 1. Please remove all the bottles from the outer ring first, then remove those from the middle ring, and then finish with the inner ring. See the diagram below for the sequence of bottle collection.



1 Note the time and sample number corresponding to the last milked cow of locker 1.

2 Note the time and number of the first cow of locker 2.

Next, perform the following operations:



		« Echar « Modifi	ngiet ntillonnage », cliq ication casier »	uer sur	
Progressio	n				
Numéro d	u casier en cours	1		1	
Position e	n cours cuillère	0		 Modification casier 	
Numéro d	u flacon en cours	0		-	
			A AL 2 1. 120		

The following screen appears

	-						
aster d'échanbilons					1		
Numéro du casier en	COURS	1				Modifica	itich
Position cuilline							
		Fr	which culling	i.	Numéro de bouteile		
Pasition de départ			1		12	t,4	antification
Position de fin			90		90	M	nañsahan
Nombre de llacons 1	ides pour a	leme	2			ħA	nsincation
Poisanichies d'échani	Nameye						
Temps de iemplissa	e llacon d'	Schankilon 25				Modific	noite
Betour							Suivant
				-			





After handling the Ori-Collector, please make sure that the protecting cover is put in place.

0

1 R	obot	Laboratoire	3 Ro	obot	Laboratoire	4 Ro	obot	Laboratoire
Robot	Panier	Ordre Panier	Robot	Panier	Ordre Panier	Robot	Panier	Ordre Panier
	1	1		1	1		1	1
1	2	2	1	4	2	1	5	2
	3	3		7	3		9	3
				2	4		2	4
2 R	obot	Laboratoire	2	5	5	2	6	5
Robot	Panier	Ordre Panier		8	6		10	6
	1	1		3	7		3	7
1	3	2	3	6	8	3	7	8
	5	3		9	9		11	9
	2	4					4	10
2	4	5				4	8	11
	6	6					12	12

The following screen appears:



To provide the start and end positions of the spoon, follow these operations:



Lasier diechantilions	4		1 mm - 1
Numéro du casier en cours	1		Modification
Position cuillère			
	Position cuillère	Numéro de bouteille	
Position de départ	0	1	# Modification
Position de fin	119	60	Modification
Nombre de flacons vides pour alarme	2		Modification
Paramètres d'échantillonnage		F	-
Temps de remplissage flacon d'échantil	lon 25	-	Modification
Appuver sur les tou	ches « modifi	cation »	
rippu) of our loo tou	acition de dé	nort of	

Next, proceed with the following operations:

- return the sampling cone to the position 1 on the rack
- press the « milking » button to unblock the door and allow cows' access again.

Statut opérationnel	"somestatus	s''		
Progression				
			— I	
				29
Installations				
Puissance disponible	"unknown"			
Pression d'air disponible	"unknown"			
Eau	"unknown"			
Réseau	"unknown"			1
Info Astronaut				× i
Numéro de série -			Version	X
Nombre de traite -		Changer l'affichage	Date	
Version du logiciel -			Heure 10.10.40	

For the basket that has been loaded:

- Put the caps back on the bottles and mix the milk with the preservative.



- Check that the number of samplings matches the number of cows milked. Only the empty bottles remaining after the last sample taken are discarded. The rest (both empty and full ones) are sent to the laboratory.

4.7. Stopping the sampling

To stop the sampling process, please follow these operations:

Programion				Ø
Bloquer	la stalle	/		I
	nyret ophologicky			19
Installations				
Puissance disponible	"unknown"			
Pression d'air disponible	"unknown"		1	
Réseau	unknown"			
hite distances a			Interface	2
Info Astronaut		1	Version	X
Numéro de série ·				and the second se
Numéro de série - Nombre de traite -		Changer l'affichage	Date	

The following screen appears:

e Shuttle es	t arrêtê								
Progression			_				-		
Numéro du	i casier en cou	ITS	Confirm	her arrêt d'éc	hantillonn	age			
Position er	ocours cuillère		L'eci	Stop	va:			Modificatio	n casier
Numéro du	i flacon en cou	Irs	<u></u>	1	- Arter	mach			
Da cliq Un	ns l'ong uer sur e fenêtr top »	let « « A e ap	Echan rrêt éch oparaît,	tillonna antillor Appuy	age » nnage er su				
-				Anêt éc	hantillonn	age	1		
		-					4		

Next, disconnect all the different hoses.





Before pressing 'Close', both the milk hose and the compressed air hose may be disconnected from the robot.







Remove the compressed air hose from the robot

To deactivate the sampling on the T4C 3.0:

- Click on « Post –milking » (1)
- Next, click on the column « Sampling (yes/no) » of the line « Herd » (2)
- In the settings, click on the cell « no » below the sampling column and then save (3)

	Lactation	Traite	Alim	entati	ons	Tai	che de	tri		iliji	DLM	Parama	ētres —		- Innovators in agriculture -
Démarrage	Général	Pré-traite	Pen	dant la	a trail	e	Post-t	raite	1	a a	l' Astr	onaut	Attention		
Entrées de données				Nomb traite	rc de ment		Dur	èe tra (se	aitem ac)	ent	Б	chantill (Oui/f	onnage Yon)	Nettoyage équipement traite	de Prioritaire alimentatio (Oui/Non)
	R	cherch	AVG	AVD	ArG	ArD	Avg	AVD	ArG	ArD					
A STATE	Troupeau		1	1	1	1	1,0	0,1	0,1	0,1	Non		2	PURA - Lelywash	Non
Animai	1) Primipares		1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Groupes	EE3) Multiperes	1	1	1	1	1	0,1	0,1	0,1	0,1	Non			PLIRA - Leiywash	Non
Bibliothèques	5) Traites im	médiates	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Paramètres	6) 2 traites		1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
	17) Traites ma	itin/soir	1	1	1	4	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
Analyses/Listes	19) Vaches ta	ries	1	1	1	1	0,1	0,1	0,1	0,1	Non			PURA - Lelywash	Non
	11) Veaux		1	4	1	1	0,1	0,1	0,1	0,1	Non	_		PURA - Lelywash	Non
and the factor of the second	13) Génisses		1	1	1	1	0,1	0,1	0,1	0,1	Non	Para	amètres		
Exportation de données	15) Taureau	ĸ	1	1	1	1	0,1	0,1	0,1	0,1	Non	Cham	os étiquette		Echantilognate
52 C	16) Animatox	sorts	1	1	1	1	0,1	0,1	0,1	0,1	Non	C. DAD	po coquerce		. commonitage
Configuration	20) Hors ont	ères	1	1	1	1	0,1	0,1	0,1	0,1	Non	0	Par défaut	Troupeau	: Non 3
Maintenance												۲	Troupeau	Troupeau	: Ooui ⊚Nan
and the second second												1			Enregistr Fermer

Allow cows' access to the robot again and ensure that milking continues normally.



4.8. Exporting robot data

Follow stages in the order below:

- Click on « Export data » (1)
- Next, click on « export sampling » (2)
- and « France dairy inspection » (3)

🔊 Démarrage	ID	Type d'exportation	
Trans and a low on the	1	Nederland EDI-MLP	
Entrees de données	2	Finlerid robot export file	
A CONTRACTOR OF	3	Erance controle latter	
Analyses/Listes	4	Deutschland ed-inip	
	5	Sweden	
Exportation do donnáos	6	Israe	
A contración de donnees	7	Japan	
	0	Belgum	
Exportation Echantillonnage	9	LEC export file Denmark	
Liaisons	10	Estoria	
Configuration			
Maintenanca			

Next, go to:

- « Analysis/lists » (1)
- « Export sampling» (2)
- Indicate the number of milking days you want to retrieve (3)
- « Export » (4)
- Save (5)





Finally:

- Select the location where you want to save the document
- In type, select « Text Document »
- Insert a name with the format XXX.dat or XXX.txt

Verification of compliance of the data file « edi-mlp »

After the first data retrieval, the dairy inspector must make sure the information contained in the file (number of livestock) is complete and in the correct format, see CPL MO 307 format type 2.

If necessary, s/he may request the installation technician to make the necessary changes.

Description of a file of type 2:

Ce format ne comporte qu'un seul type d'enregistrement qui regroupe les données relatives à l'exploitation, au prélèvement d'échantillon et à la production de lait.

→ lignes de type VN880022.

La ligne de définition commence avec : DN880022.

```
Elle contient :
```

```
DN8660220080000415000900080150009000700600080002910000900054080009000780600
```

Les enregistrements élémentaires ont la structure suivante :

Positions	Nom donnée	Format	Long.	Présence	Commentaires
1-2	type de ligne = VN	A	2	0	
3-8	entité = 880022	N	6	0	
9-23	Numéro de cheptel		15	F	cadré à droite ne contient pas FR à gauche du numéro
24-38	Numéro d'identification animal	N	15	F	cadré à droite; Il peut y avoir des zéros à gauche
39-44	Numéro animal (de travail)	N	6	0	cadré à droite : Il ne peut pas y avoir des zèros à gauche
45-54	Nom animal	AN	10	F	
55-62	Date de la traite	N	8	0	aaaammij
63-68	Heure de la traite	N	6	0	hhmmss
69-71	Poids de lait individuel	N	3,1	F	cadré à droite
72-86	Numero de tube de l'échantillon	N	15	F	Les 4 caractères signifiants sont cadrés à droite
87	Indicateur de traite valide (Gemolken)	N	1	0	0 = oui ; 1 = non
88-93	Numéro de panier	N	6	F	???

Présence : K = Key (Identifiant).....

O = Obligatoire

F = Facultatif

4.9. Data Processing with the data collected

After using the Ori-Collector, it is necessary to use the parameters of 96 bottles, these settings interfere with the numbering on the EDI-mlp file. The numbering is not reliable after sampling 12.

It is necessary to number the samplings in the following manner:

From 12 to 1, in 12 to 1(12=1, 11=2, 10=3, 9=4.....) From 36 to 25, in 25 to 36 (36=25, 35=26, 34=25, 33=27.....) From 60 to 49, in 49 to 60 (60=49, 59=50, 58=51, 57=52....) From 84 to 73, in 73 to 84 (84=73, 83=74, 82=75, 81=76...) Refer to the following file to better understand how this works.

The Original Robot software, from version 9.85 onwards, allows for the numbering of the bottles. For this purpose, the name extension must be changed to **.ori**.



Example of renumbering table:

	chumbern	16 0	abie.						-
Numbering Xlink	Renumbering for Treatment		Numbering Xlink	Renumbering for Treatment	Numbering Xlink	Renumbering for Treatment	Numbering Xlink	Renumbering for Treatment	
12	1		36	25	60	49	84	73	
11	2		35	26	59	50	83	74	
10	3		34	27	58	51	82	75	
9	4		33	28	57	52	81	76	
8	5		32	29	56	53	80	77	
7	6		31	30	55	54	79	78	
6	7		30	31	54	55	78	79	
5	8		29	32	53	56	77	80	
4	9		28	33	52	57	76	81	
3	10		27	34	51	58	75	82	
2	11		26	35	50	59	74	83	
1	12		25	36	49	60	73	84	
13	13		37	37	61	61	85	85	
14	14		38	38	62	62	86	86	
15	15		39	39	63	63	87	87	
16	16		40	40	64	64	88	88	
17	17		41	41	65	65	89	89	
18	18		42	42	66	66	90	90	
19	19		43	43	67	67			
20	20		44	44	68	68			
21	21		45	45	69	69			
22	22		46	46	70	70			
23	23		47	47	71	71			
24	24		48	48	72	72			

In Example: edi-mlp.dat

In this example, you can see the right date /hour chronology for this control. You need a tools to renumber every Vial number or use a table to put the right number of the vial.

	Cow		Data		Milk	Vial	Milking		Vial
	Number	Name	Date	Hour	Production	Number	Status	N° Kack	Renumbering
VN880022	41	Balzane	20121025	152551	81	12	0	2	1
VN880022	31	Belle	20121025	153143	109	11	0	2	2
VN880022	3	Treille	20121025	153751	127	10	0	2	3
VN880022	71	Dinette	20121025	154623	105	9	0	2	4
VN880022	15	Venelle	20121025	155245	94	8	0	2	5
VN880022	4	Tarentelle	20121025	155842	98	7	0	2	6
VN880022	43	Coccinelle	20121025	160408	94	6	0	2	7
VN880022	53	Emplette	20121025	161536	78	5	0	2	8
VN880022	37	Brève	20121025	163148	86	4	0	2	9
VN880022	91	Egine	20121025	164214	83	3	0	2	10
VN880022	38	Egérie	20121025	170601	112	2	0	2	11
VN880022	5	Ultime	20121025	171623	72	1	0	2	12
VN880022	73	Décence	20121025	172403	73	13	0	2	
VN880022	35	Blague	20121025	173023	130	14	0	2	
VN880022	26	Brume	20121025	173537	59	15	0	2	
VN880022	80	Dépêche	20121025	174910	82	16	0	2	
VN880022	89	EPEE	20121025	175829	94	17	0	2	
VN880022	46	Capucine	20121025	180659	67	18	0	2	
VN880022	57	Déesse	20121025	181145	117	19	0	2	
VN880022	66	Digue	20121025	181823	50	20	0	2	
VN880022	79	Devote	20121025	182311	81	21	0	2	
VN880022	33	Brique	20121025	182735	66	22	0	2	
VN880022	13	Vacance	20121025	183333	102	23	0	2	
VN880022	20	Azalée	20121025	184050	123	24	0	2	
VN880022	19	Amande	20121025	184701	79	36	0	2	25
VN880022	72	Devinette	20121025	190135	73	35	0	2	26
VN880022	59	Datcha	20121025	190930	144	34	0	2	27
VN880022	36	Epice	20121025	192246	79	33	0	2	28
VN880022	83	Endive	20121025	192854	71	32	0	2	29
VN880022	87	Elegie	20121025	194755	105	31	0	2	30
VN880022	88	Ebonite	20121025	205522	103	30	0	2	31
VN880022	76	Diane	20121025	211406	90	29	0	2	32
VN880022	82	Elite	20121025	215718	97	28	0	2	33
VN880022	92	Epitaphe	20121025	230750	93	27	0	2	34
VN880022	43	Coccinelle	20121025	232852	101	26	0	2	35
VN880022	53	Emplette	20121025	235359	77	25	0	2	36



	Cow		.		Milk	Vial	Milking		Vial
	Number	Name	Date	Hour	Production	Number	Status	N° Rack	Renumbering
VN880022	69	Digitale	20121026	402	71	37	0	2	
VN880022	37	Brève	20121026	5228	90	38	0	2	
VN880022	50	Canaille	20121026	10309	106	39	0	2	
VN880022	60	Dalhia	20121026	10851	84	40	0	2	
VN880022	36	Epice	20121026	12121	78	41	0	2	
VN880022	57	Déesse	20121026	13427	119	42	0	2	
VN880022	56	Cactée	20121026	14025	97	43	0	2	
VN880022	89	EPEE	20121026	20147	98	44	0	2	
VN880022	59	Datcha	20121026	20852	138	45	0	2	
VN880022	79	Devote	20121026	21702	91	46	0	2	
VN880022	87	Elegie	20121026	40102	109	47	0	2	
VN880022	28	Brise	20121026	42037	94	48	0	2	
VN880022	86	Enclume	20121026	51012	144	60	0	2	49
VN880022	35	Blague	20121026	55035	184	59	0	2	50
VN880022	88	Ebonite	20121026	62011	131	58	0	2	51
VN880022	5	Ultime	20121026	65555	104	57	0	2	52
VN880022	3	Treille	20121026	70547	99	56	0	2	53
VN880022	71	Dinette	20121026	71602	153	55	0	2	54
VN880022	4	Tarentelle	20121026	72330	172	54	0	2	55
VN880022	38	Egérie	20121026	81914	185	53	0	2	56
VN880022	2	Alizée	20121026	83135	94	52	0	2	57
VN880022	15	Venelle	20121026	102502	118	51	0	2	58
VN880022	56	Cactée	20121026	103043	118	50	0	2	59
VN880022	67	Daphnée	20121026	103708	93	49	0	2	60
VN880022	60	Dalhia	20121026	104254	137	61	0	2	
VN880022	11	encre	20121026	105156	95	62	0	2	
VN880022	59	Datcha	20121026	110019	157	63	0	2	
VN880022	79	Devote	20121026	110652	97	64	0	2	
VN880022	40	Biscotte	20121026	111554	188	65	0	2	
VN880022	20	Azalée	20121026	112643	230	66	0	2	
VN880022	12	Venue	20121026	113253	161	67	0	2	
VN880022	7	Vague	20121026	114331	225	68	0	2	
VN880022	55	Caféine	20121026	115152	129	69	0	2	
VN880022	89	EPEE	20121026	120345	119	70	0	2	
VN880022	45	Caille	20121026	120817	89	71	0	2	
VN880022	87	Elegie	20121026	121418	113	72	0	2	
VN880022	13	Vacance	20121026	122038	107	84	0	2	73
VN880022	78	Dolcevita	20121026	122551	95	83	0	2	74
VN880022	1	Ellebore	20121026	124137	115	82	0	2	75
VN880022	47	Coquette	20121026	132831	116	81	0	2	76
VN880022	52	Candi	20121026	133905	100	80	0	2	77
VN880022	92	Epitaphe	20121026	142505	110	79	0	2	78
VN880022	64	Docile	20121026	143432	122	78	0	2	79
VN880022	54	Clématite	20121026	144927	52	77	0	2	80
VN880022	18	Amazone	20121026	145755	53	76	0	2	81
VN880022	81	Electre	20121026	150446	77	75	0	2	82
VN880022	40	Biscotte	20121026	151922	140	74	0	2	83
VN880022	65	Dune	20121026	152614	138	73	0	2	84
VN880022	91	Egine	20121026	154214	83	85	0	2	
VN880022	71	Dinette	20121026	154623	105	86	0	2	
VN880022	15	Venelle	20121026	155245	94	87	0	2	
VN880022	4	Tarentelle	20121026	155842	98	88	0	2	
VN880022	43	Coccinelle	20121026	160408	94	89	0	2	
VN880022	53	Emplette	20121026	161536	78	90	0	2	L



4.10. Editing the list of samplings

To perform this operation, go to:

- « Analysis/Lists » (1)
- « Reports » (2)
- Select « Milking -Milk sampling » (3)

A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	Rapports favoris	_	Rapports Lely par défaut	_	Tous les rapports	
of Démarrage	Alimentation - Reste aliment (60)	-5	Analyse - Concentré/Kg de lait	*	Alment et Production	* F
	Traite - Echecs de Traite (0)	3	Analyse - Lactations vadre	3		
Entrées de données	Traite - Efficacité vaches au robot (60)	3	Analyze - Total Rumination Minutes	3		
	Traite - Liste traites dernières 24 H (0)	-6	Planning - Vélages attendus			
Analycec/Lictor	Traite - Robot Performance (21)	1	Planning - Tarissement attendu	8		
JAnalyses/Lisces	Traite - Santé mamelle (D)	4	Planning - Chaleur après insénination	-		
	Traite - Vaches en retard (0)	-4	Planning - Agercy toutes varies	-		
Tableau de bord			Planning - Contrôle gestation	3		
Rapports 2			Calme - Données réeles	8		
X Link			Etat - Probabilité chaleur	4		
Indications périphériques			Etat - Poids toutes vaches	4		
			Condition - Rumination			
Concetation de données			Almentation - Vue d'ensemble	1		
Exportation de connects			Almentation - Reste alment	3		
			🗐 Traite - Efficanté vaches au robot	3		
Configuration			Traite - Vaches en retard	3		
			🗊 Traite - Production du jour	3		
Maintenance			Traite - Echecs de Traite	3		
and the second s			📑 Traite - Apergu troupeau	3		
and the second second second			🔄 Traite - échantilonnage lait	3		
Votre Guide			📑 Traite - échantilonnage lait atten	1		
			Traite - Séparation lait	-		
			Traite - Liste traites demières 24 H	3		
			Traite - Production/Années/Robot	1		



5. CLEANING AND MAINTENANCE

5.1. Washing after inspection

Before the cleaning process is started, please put the pin of the bottle filling system back in place.





Put your finger underneath to pull the drawer.

Insert the pin in the hole provided for this purpose.



Once the pin has been inserted in Transport/Off mode, the filling system may be disassembled to proceed with its cleaning.

Removal of the Compressed Air Hose





Disassemble the filling system





The box of the Ori-Collector can be cleaned with water by avoiding:

- filling it with water completely
- spraying the drive cylinder (shorter life)
- using a suppressor for cleaning (a simple damp cloth will suffice)

It is necessary to drain the remaining water through the evacuation holes provided for this purpose.

It is not necessary to spray the drive cylinder.

5.2. Cleaning of the filling system and Hose

The support can be removed in order to be cleaned directly over a sink.



Use the syringe to inject hot water with a little acid in the silicone hoses and in the stainless steel tank.

Caution: Because a chemical product is being used, it is imperative that personal protective equipment is worn.

5.3. Cleaning the Box and Crown

The crown may be washed with water. Do not use pressure, THIS COULD DAMANGE THE CYLINDERS



5.4. Removing the silicone Hose from the filling system

In order to replace the silicone hoses, please follow these steps:

Dismantle the stainless steel tank



Gently pull the stainless steel tank up to disconnect it from the rest of the device.



Once the tank has been extracted, the silicone hose may be changed if it is damaged.



Please remove the silicone hose and replace it on the tank filler (without silicone grease)



Size of the silicone Hose: (4/6, 4 mm inside, and 6 mm outside)



Before connecting the tank with the silicone hose, it is **imperative** to lubricate it with food grease.





Connect it in the following manner:



To enable the introduction of the silicone tube into the stainless steel nozzle, it is necessary to turn the stainless steel filling hose.



Checking the silicone hose connection is correct





Put the device back on its mounting rail.





Reconnect the compressed air



5.5. Removing the steel plate



Before proceeding to dismantle de crown, please make sure that the system is not connected to the compressed air.

To facilitate the disassembly, the drive system of the stainless steel crown may be bedraggled.

For this purpose, use the stainless steel chainlets to retain the drive crown plate (Fig 1) and also the non-return crown system (Fig 2)







To remove the crown, it is necessary to tilt it to one side.



Care is required when handling the crown, since there is a risk of injury and also damage of the system in case of heavy impact.





Now the reassembly of the crown may be carried out, with caution not to forget to reactivate the drive system removing the stainless steel chains, the spring and the anti-return system.



5.6. Care and Maintenance

The system should be checked every 6 months to ensure good performance.

Regular Maintenance:

Monthly: Check the silicone hose of the filling system, and replace if necessary (it is recommended to change it every 2 months as a preventive measure and after using the device).

Yearly: Replace:

- The recoil spring of the drive cylinder
- The recoil spring of the Anti-return system.

The system does not need any lubrication (it works on dry cylinders)

The cylinders must be inspected, it is necessary to change them if their performance is altered.

5.7. Malfunction of the Ori-Collector

Operational hazards that may occur when using the Ori-Collector

Problems encountered	Causes
The system does not sample cows	Check if the sampling sequence has been activated on the robot
	Check the compressed air connection
	Check the milking hose on the side of the robot
The system does not work, but the bottle is	
filled	Check the release system of the drive cylinder
	Check the anti-return release system
The system moves 2 notches	Check the robot settings (96 Bottles)
The bottles are not filled enough	Check the filling times on the robot console



6. LIST OF PARTS



Reference	French	English
Ref SC-00 (x1)	support verin	Cylinder support
Ref DP-00 (x1)	Système doseur	Filling system
Ref TP-00 (x1)	Couvercle	Protecting cover
Ref PT-00 (x1)	Plateau Inox	Stainless steel tray
Ref CJ-00 (x1)	Caisse Aluminium	Aluminium case
	Ecrou inox M5 A2	M5 A2 stainless steel nut
	Ecrou inox M8 A2	M8 A2 stainless steel nut
		M5 stainless steel screw
	Vis inox M5x20	x20
	Rondelle inox M5	M5 stainless steel washer





Reference	French	English
Ref CJ-01 (x1)	Caisse aluminium	Aluminium case
Ref CJ-03 (x1)	Entretoise Supérieure Nylon	Nylon Upper Brace
Ref CJ-05 (x1)	Support Antenne RFID	RFID antenna support
Ref CJ-09 (x1)	Poignet de transport	Carrying handle
Ref CJ-06 (x1)	Entretoise Inferieur Nylon	Nylon Lower Brace
Ref CJ-07 (x1)	Support inferieur de couronne	Crown lower support
Ref CJ-02 (x1)	Support supérieur de Couronne	Crown upper support
Ref CJ-04 (x2)	Equerre pour support supérieur	Upper support bracket
Ref CJ-08 (x2)	Poignet	Handle
Ref CJ-10 (x4)	Pied réglable	Adjustable foot





Reference	French	English
Ref DP-04 (x1)	Embout de vérin	Cylinder tip
Ref DP-06 (x1)	Tuyau inox de remplissage	Stainless steel filling hose
Ref DP-05 (x1)	Plaque inferieur	Lower plate
Ref DP-01 (x1)	Réservoir Inox	Stainless steel tank
Ref DP-07 (x1)	Goupille inox	Stainless steel pin
Ref DP-02 (x1)	Plaque supérieure du système doseur	Filling system upper plate
Ref DP-08 (x1)	Vérin de vidange lait	Milk emptying cylinder
		Clevis in front of the
Ref DP-03 (x1)	Chape avant de vérin	cylinder





Reference	French	English
		Stainless steel crown for 90
Ref PT-01 (x1)	Couronne Inox pour 90 flacons	bottles
Ref PT-02 (x1)	Support Plexiglas	Plexiglas support
Ref PT-03 (x6)	Entretoise inox	Stainless steel brace





Reference	French	English
Ref SC-01 (x1)	Support pour vérin d'entrainement	Drive cylinder support
Ref SC-02 (x1)	Plaque antiretour	Anti-return plate
Ref SC-03 (x1)	Chape avant de vérin	Cylinder front clevis
Ref SC-04 (x1)	Plaque de Blocage ressort	Spring blocking plate
Ref SC-05 (x1)	Embout de vérin	Cylinder tip
Ref SC-06 (x1)	Vérin d'entrainement	Drive cylinder
Ref SC-07 (x1)	Ressort de chape avant	Front clevis spring
Ref SC-08 (x1)	Ressort pour antiretour	Anti-return spring





Reference	French	English
Ref TP-01 (x1)	Couvercle Plexiglas	Plexiglas Protective cover
Ref TP-02 (x1)	Poignet Inox	Stainless steel handle



FRANCE CONSEIL ELEVAGE (French Farming Council)

Maison du Lait 42 rue de Châteaudun 75009 Paris T. 01 53 94 65 00 – F. 01 53 94 65 20 – fcel@france-conseil-elevage.fr