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Instruction manual

Pistol & gun darts

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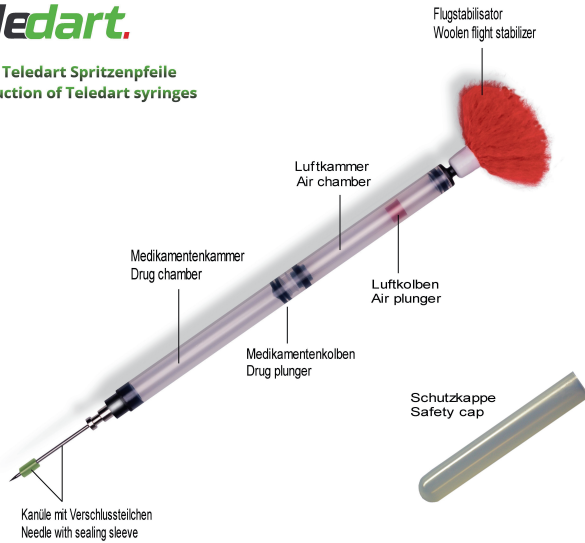
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Chapter 2: Construction and operating mode of the darts

teledart.

Aufbau Teledart Spritzenpfeile
Construction of Teledart syringes



Chapter 1: Legal notes

TeleDart GmbH & Co. KG accepts no liability for damages caused by improper handling of darts. Please adhere to all regulations applicable to your country in regard to the handling of weapons as well as animal protection and welfare. Please follow strictly all safety advices of the drug producer.

Chapter 2: Function of dart syringe

Our needles are produced with 2 openings and the tip is closed. The openings are to be covered with a silicone sealing sleeve.

First inject medication into the medication chamber, than put on needle with sealing sleeve onto syringe. After that pressurize air chamber with help of an pressure syringe AS, AS20 or AS60, which presses the medication in the medication chamber of syringe.

The flight stabilizer is important for stabilizing dart during shot.

When dart hits an animal the needle goes through skin and the silicone sleeve gets pushed back. The openings in needle become free and medication is released into muscle tissue.

Chapter 3 : Accessories needed

air filling syringe AS and AS20



connecting adapter (CON)



venting pin (VP)



drug filling syringe 3ml (FS3)
drug filling syringe 5ml (FS5)
with drug filling needle (FN)



silicone oil (SO)



needle tool (ST)



safety cap SCG11 cal. 11
safety cap SCG13 cal. 13



Chapter 4: Available dart syringe sizes

Caliber	Name	Volume
cal. 11	TD005-11	0,5ml
	TD01-11	1 ml
	TD01,5-11	1,5 ml
	TD02-11	2 ml
	TD03-11	3 ml
	TD05-11	5 ml
	TD07-11	7 ml
	TD10-11	10 ml
cal. 13	TD01-13	1 ml
	TD02-13	2 ml
	TD03-13	3 ml
	TD05-13	5 ml
	TD07-13	7 ml
	TD10-13	10 ml
	TD15-13	15 ml
	TD20-13	20 ml
cal. 16	TD01-16	1 ml
	TD02-16	2 ml
	TD03-16	3 ml
	TD05-16	5 ml
	TD10-16	10 ml
	TD15-16	15 ml
	TD20-16	20 ml

For safety reasons TeleDart®-syringes are only allowed with original TeleDart®-needles.

Chapter 5: Available TeleDart®- needles and silicone sealing sleeves

Ø 1,5mm / plain with silicone sealing sleeves SSG50 (green)

needle	TDN1520	20mm long
needle	TDN1525	25mm long
needle	TDN1530	30mm long
needle	TDN1538	38mm long

Ø 1,5mm / collared with silicone sealing sleeves SSG50 (green)

needle	TDN1520C	20mm long
needle	TDN1525C	25mm long
needle	TDN1530C	30mm long
needle	TDN1538C	38mm long

Ø 2,0mm / plain with silicone sealing sleeves SSR50 (red)

needle	TDN2020	20mm long
needle	TDN2030	30mm long
needle	TDN2040	40mm long
needle	TDN2060	60mm long
needle	TDN2080	80mm long
needle	TDN20100	100mm long

Ø 2,0mm / collared with silicone sealing sleeves SSR50 (red)

needle	TDN2020C	20mm long
needle	TDN2030C	30mm long
needle	TDN2040C	40mm long
needle	TDN2060C	60mm long
needle	TDN2080C	80mm long
needle	TDN20100C	100mm long

Ø 2,0mm / barbed with silicone sealing sleeves SSR50 (red)

needle	TDN2030W	30mm long
needle	TDN2040W	40mm long
needle	TDN2060W	60mm long

(other sizes on demand)

Chapter 6: Choosing suitable syringe and dart size

Choice of dart syringe

Barrel and volume depend on animal size and medication volume.

For best ballistic, smallest possible dart volume and barrel should be chosen.

TD03-11 is the most common dart suitable for various demands.

Darts larger than 5 ml are only suitable for shorter distances.

Choice of needle

Any TeleDart®-needles can be used with any TeleDart®-syringes.

Choice of needle depends on property of skin/muscle/fat/fur.

For darts 5 ml and more we recommend needles with collar.

Chapter 7: Safety notes

Handling of filled and pressurized syringes can be quite dangerous. Protect yourself and others by considering these safety instructions.

1. Follow instructions from producer for handling medication.
2. Protect yourself and others while handling toxic medication and danger of contamination by wearing personal protective equipment.
3. To avoid injury or contamination from needles, please always handle them with safety caps until dart is placed in barrel. Safety caps are included in starter rifle/pistol syringe set, but not with syringes bought seperately.
4. Avoid spreading diseases by used, not disinfected needles.
5. Keep away loaded syringes from not authorized persons and children.
6. Never leave darts and needles behind.
7. In danger of contagious deseases please disinfect thoroughly and contact your vet.

Chapter 8: Filling of dart Syringe

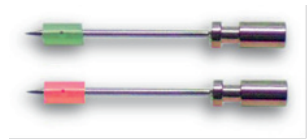
Please follow these instructions step by step.

Always keep in mind our safety notes (chapter 7).

We recommend to practise filling of dart syringe regularly to ensure fast and safe handling when treatment of animal is required.

Preparing TeleDart® needle

► The needle has got two lateral openings on top. Carefully push the sealing sleeve by turning movements onto the needle until both lateral openings are completely covered.



Make sure you use correct sealing sleeve, otherwise they might be too tight or too loose.

Tip: A drop off oil SO will help sliding of sealing sleeve.

The sealing sleeve must not be damaged. Only use it once.

Filling of TeleDart® gun darts

The following steps will show you how to fill the dart correctly. We recommend to practise the filling of darts several times until you become familiar with it.

- ▶ Take off flight-stabilizer and safety cap. For barrel 13 syringe plastic cap must be removed as well!
- ▶ Red air plunger must be loose.

Note: if air plunger is not loose, push venting pin inside air chamber to loosen plunger.

- ▶ Fill air filling syringe AS fully with air.
- ▶ Put the AS with connecting adapter CON onto the drug chamber (black plunger) of your dart.
- ▶ Hold the dart upright (air chamber shows to the top) and press the black drug plunger to the other end of the drug chamber, until the medication plunger moves to the end.

For dart syringes from 5 ml you have to repeat this to fill the air chamber fully or use air filling syringe AS60 (60 ml volume). It might be helpful to put the AS60 upright on hard surface and push down the syringe to fill with air.



Filling the drug:

- ▶ Fill the drug into medication filling syringe FN
- ▶ Fill the drug upright into drug chamber (black plunger) of dart.
- ▶ In order to get best ballistics, fill the drug chamber 100%. If necessary top it up with saline-solution.
- ▶ Remaining air bubbles in drug chamber are harmless and do not influence the function.

The syringe tipp always must be dry and free of oil.



Putting on the needle:

If using darts with a aluminium cap (barrel 13), please remove that cap first.

- ▶ Now, using needle tool ST, fix prepared needle onto top of dart's drug chamber (**no luerlock!**). Make sure the needle has been fixed as firmly as possible!
- ▶ Using darts with aluminium cap, please put the cap back onto the dart and tighten properly. This cap ensures that needle and syringe stay together after injection!

Remember safety notes! (chapter 7)

► Now cover the needle by putting safety cap onto dart.

The safety cap prevents the loss of drugs if needle is leaking.

- Fill the air filling syringe AS (with connection piece CON) fully with air and connect it with the air chamber (red plunger) of your dart.
- Hold the dart **exactly upright** with the needle showing to the top!
- Now press air into the air chamber until you feel a **strong backpressure**.
- In that moment keep the AS pressed and **at the same time** take it off in a fast movement.

For dart syringes from 5 ml you have to repeat this to fill the air chamber fully or use air filling syringe AS60 (60 ml volume).



► **Pressure control:**

The air plunger must not be loose! Test it by flipping the air chamber with your finger. If the membrane releases and becomes loose inside the air chamber, do not use the dart. Please repeat the process and try to press more air into the air chamber this time.

Only with enough pressure the medication will be released fully!

- Put the flight-stabilizer back onto the dart.
- The dart is now ready for use.
- Do not take off the safety cap until the beginning of your treatment.

Please handle filled dart always very carefully and ensure that no medication is leaking. If that is the case empty syringe as described in chapter 10!

We recommend to write on syringe details of drug inside, especially if several syringes are in use.



Chapter 9: After sedating

If dart is still in animal, please check first if all medication has emptied into body. If not, take following steps:

- ▶ Take off the flight-stabilizer.
- ▶ De-aerate the dart by pushing venting pin VP into air chamber. The red air plunger must be loose.

Remove dart from animal and put on safety cap and store it safely.



Chapter 10: Unloading the darts

TeleDart syringes can be stored filled with medication. The special plastic does not react with liquid. Don't store filled darts under pressure. Follow storage advice of pharmacist.

- ▶ Take off the safety cap.
- ▶ Remove sealing sleeve from needle.

- ▶ Take off the flight-stabilizer.
- ▶ De-aerate the dart by pushing the venting pin VP into the air chamber. The red air plunger must be loose.

If you are sure, that the dart is de-aerated, hold it with needle to the top.



- ▶ Use a drug bottle (for example with rubberised seal) and
- ▶ put the air filling syringe AS / AS20 / AS60 (with connecting adapter CON) onto drug chamber of dart.
- ▶ Press the drug into bottle by pressing air into air chamber of syringe.



Please take into consideration, that the concentration of the drug has been changed by adding saline-solution.

Therefore we recommend to store these dosages always separately and mark them carefully.

Remember safety notes! (chapter 7)

Chapter 11: Cleaning gun darts

- ▶ Remove flight-stabilizer and safety cap.
- ▶ Rinse dart syringe under running water, but don't put water into airchamber.
- ▶ Pull of needle with needle tool ST.
- ▶ Put syringe air chamber under pressure with loaded air filling syringe.
- ▶ Then fill air filling syringe AS with water.
- ▶ Put the AS with connecting adapter CON onto the drug chamber of dart.
- ▶ Press the water into the drug chamber several times to rinse all residuums.
- ▶ Repeat until drug chamber is clean.
- ▶ Release air pressure by pushing venting pin VP into air pressure plunger.
- ▶ Put on flight stabilizer and safety cap.



Note: Never clean the air chamber of the dart. It always has to be kept dry!

Chapter 12: Cleaning the needle

- ▶ Remove silicone sealing sleeve.
- ▶ If you are using cal.13 darts with aluminium cap, please remove it first.
- ▶ Hold needle under running water, to clean it from blood and debris.
- ▶ Fill air filling syringe AS / AS20 / AS60 (without connecting adapter CON) with water.
- ▶ Remove needle by using needle tool St and put it on air filling syringe AS.
- ▶ Press water through needle.
- ▶ Disinfect needle if necessary.

Remember safety notes! (chapter 7)



Chapter 13: Care of dart syringes

- ▶ Fill the air filling syringe AS / AS20 / AS60 (with connection piece CON) fully with air and connect it with drug chamber of your dart.
- ▶ Hold the dart exactly upright.
- ▶ Now press air into the air chamber until the drug chamber plunger moves to the end.

For dart syringes from 5 ml you have to repeat this to fill the air chamber fully or use air filling syringe AS60 (60 ml volume).

To assure the function of the dart, we recommend cleaning the black drug plunger with silicon oil (SO) after every use:

- ▶ Fill drug filling syringe FN with a few drops of silicone oil and push it into drug chamber of dart.
- ▶ Spread the oil by turning dart and softly press air into the dart by using air filling syringe to move the black plunger to the middle of drug chamber.
- ▶ Store dart upright with drug chamber on top for at least 2 hours to steep the drug plunger in oil.



The tip of the dart must always be free of oil.
Only use original TeleDart® silicone oil.

- ▶ Then store dart for about 2 hours upright, drug chamber to bottom, on a cloth. Surplus silicone oils will empty on cloth.
- ▶ Fill air syringe with air and press the air with connecting piece CON into air chamber of dart until drug plunger moves to the end.

Never put oil into air chamber!

Storage of TeleDart® gun darts

Always store TeleDart® gun darts unfilled and de-aerated.

Though the darts consist of a continuous-stable plastic material, even under a dry storage with temperatures from 0-30°C they should be used within 36 month.

Protect your darts against UV-rays as this may influence their lifetime.

TeleDart® woolen flight-stablizer

Please note, that woolen flight-stabilizers are strained when used very often. This can influence the flight quality of the dart. Therefore we recommend to change the flight-stabilizer of your dart after a certain number of shots.



Chapter 14: Care of needles

- ▶ No special care needed.

Chapter 15: Reusability

Reusability of syringe dart and needles

- ▶ Please check function prior to use.

Attention:

Don't use darts if they are damaged or needles don't hold tight.

- ▶ Ensure needle is not damaged and holes are permeable.
- ▶ Only use cleaned and sterilized needles.

Attention:

Remember safety notes! (chapter 7)

Chapter 16: Disposal of syringe dart and needles

- ▶ Only dispose of empty and cleaned darts without needle.
- ▶ Dispose needle cleaned or disinfected with suitable safety cap.

Attention:

Remember safety notes! (chapter 7)

Chapter 17: Ballistic explanation

In the contrary to killing munition, remote injection darts get applied gently to avoid traumatisation. For this reason flying speed of dart is quite slow. It is important to know the exact distance and adjust the pressure accordingly. Pressure also depends on dart and barrel size.

Never shoot in windy weather, because darts can not be shot accurately.

Bent needles or darts or damaged stabilizers will also affect trajectory negatively. We recommend only to use immaculate equipment.

Notizen / notes

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