



14.8 APPENDIX 8 – IDENTIFICATION OF SYNCHRONISATION ERRORS

1. Scoring synchronisation

Introduction

- The synchronisation panel, comprised of two synchronisation technical controllers, will operate only in Duet and Team routines (Open Team Technical, Open Team Free, Open Free Combination and Acrobatic).
- The goal is to objectively identify synchronisation errors during the routine performance and calculate deductions accordingly.

Definition of synchronisation:

- Synchronisation is the precision of movements in unison one with the other/s. It means to have actions happen at the same time.
 - A difference in timing:
 - Movements are not performed in complete unison one with the other(s).
 - Actions do not happen at the exact same time.

2.6 Synchronisation Errors

General Requirements in regard to Synchronisation Errors

- 1) Synchronisation Technical Controllers start to count unequal actions when the music accompaniment begins.
- 2) Routines will have as many errors counted as are observed by the synchronisation controllers and validated by the system – therefore unlimited. It can be more than one during the same hybrid or transition sequence. This means that each movement is susceptible to generate a synchro error (unequal action). Two of the most significant examples of continued accumulation of deductions are:
 - A hybrid beginning unsynchronised and keeping a timing difference until the end. Each movement delayed will be counted as a synchro error (unequal action).
 - A rotation where a difference in timing or positioning may occur during the entire rotation. It is stated in the Introductory Guide for the Application of Declared Difficulty that each 180° rotation is considered as one movement, and therefore a difference in timing maintained from beginning to end of a 720° spin (or twist) could accumulate a maximum of 4 unequal actions (either small or obvious).
- 3) When movements are very fast the controller registers as many unequal actions as seen with the time limitation of the validation system; that is: controllers can only register one unequal action approximately every 0.5 seconds.



Definitions of Synchronisation Errors

Synchronisation errors are defined in three categories – Small, Obvious or Major:

Small	Slight differences in timing that cannot be considered as two different movements but distort the image of perfect synchronisation.
	Small synchronisation errors include slight differences in timing only.
Obvious	Any unintentional difference in matching that produces the effect of two movements being done one after the other.
	Obvious synchronisation errors include: Clear difference in timing (one after the other)
Major	Any error that produces an alteration in routine content (missing one or more movements by one or more Athletes).
	Major synchronisation errors include: An alteration of the routine content by one or more Athletes (missing movements). Any alteration (missing movement) counts as a major error – for example even if it's just one quick backstroke that is missed by an Athlete. Major synchronisation errors DO NOT include: Adding a movement to fix/replace nose clips or adjust head piece or swimsuit.

Note: When you are watching different routines, you might feel that some of the errors observed as “Small” in younger/developing Athletes, may be considered “Obvious” in older/experienced Athletes/routines. This is due to the length of time of the counting/speed of movement – speed adds more risk to synchronisation.

- For example: when Athletes are working at faster speeds (such as 4 movements per second), there's more risk to make “Obvious” errors (visual two different movements) than when routines are slower (such as one movement per second). Movements done one per second, need a complete second difference to appear to be two different movements.



Applying synchronisation errors:

- **Mirrored Actions in Free Routines**

- If it is well synchronized timing, there could be no synchro error (understanding it could be choreography in duet/team).
- If there is certainty that it is an execution error (for example in team one athlete clearly does opposite limb) – it could be a small or obvious error depending on timing (as per definitions).
- It is not a major error unless a movement is not done.

- **Mirrored Actions in Technical Routines**

- Women's Duet and Team Technical have different rules than Mixed Duet Technical.
- For Team and Women Duet: With the exception of deck work and entry into the water, getting into and out of the circle (Team), and Acrobatics, Technical Required Elements, Hybrids and Transitions are to be performed simultaneously and facing the same direction by all duet or team members.
- For Mixed Duets: Only Technical Required Elements must be performed simultaneously and facing the same direction. Deckwork and Entry into the water, Hybrid, Required Hybrid, Entry into or Exit out of Technical Required Elements, Transitions and Pair Acrobatics DO NOT have this restriction and may be performed freely (non-simultaneous and facing different directions).
- If a mirrored action is observed during a part that must be synchronised and facing the same direction, the DTC panel is responsible for the general requirement penalty.
- The STC panel shall only apply a small or obvious error if there was a timing issue.
- It is not a major synchronization error.

- **Mixed Duet**

- Mixed Duet is a unique discipline where the athletes display unique choreography that presents an interpretative dance in the water. As such, the manner in which it is controlled requires special attention by the STCs.
- The Mixed Duet Technical and Free routines are intentionally choreographed to have many intentional unsynchronized actions, especially during transition parts and therefore there may not be many or any synchronisation errors.
- Synchronised hybrids (or hybrid parts), intentionally synchronised parts in transitions, and Technical Required Elements are where synchronisation errors may be observed.
- STCs must be aware of the differences of this unique event and be prepared to adjust accordingly.

- **Acrobatic and Free Routines**

- In contrast to Technical duet and team routines in the Junior and Senior categories where all elements must be performed synchronised and facing the same direction, Acrobatic and Free routines display more freedom of choreography with intentional unequal actions and differences in timing to elevate artistic impression.
- STCs must therefore adjust synchro error observation, and during intentional sequences of unsynchronized actions synchro errors may not be applicable.

- **Free Combination**

- For the Free Combination routine event in addition to considering the above regarding Free Routines and intentional unsynchronised sequences, routine parts overlapping as the routine transitions from one part to another may be observed.
- For example, a team part is ending and a duet part is beginning. In this situation, focus on the part ending and then turn your attention to the part that is beginning. Further, do not focus on swimmers at the side not performing during a combo part.


2.7
Procedures
Using a Synchronisation Application or Device

- How we calculate the final result for the synchronisation panel:
- There will be one panel of two synchronisation technical controllers, each of them with a synchronisation application (via tablet)/or a device with three buttons. Each "button" will have a different colour:

Green will be pressed for small errors.

Yellow will be pressed for obvious errors.

Red will be pressed for major errors.

- The average of small, obvious and major errors of the two Synchronisation Technical Controllers will be calculated to be applied for the synchro error deduction. If major errors are identified by the Synchronisation Technical Controllers the deduction will be applied following the process as per 2.8 below.

Paper and pencil method (No access to application/device)

- If the implementation of the synchro application or device is not possible then a "paper and pencil" method can be used by the panel of synchronisation controllers.
- For this method a printed one-page chart should be made for each synchro controller with three columns – one for small errors, one for obvious errors and one for major errors. Please see the end of the document for the World Aquatics template.
- Synchro controllers then mark each small (S), obvious (O) and major (M) error they identify with a checkmark. Each controller then adds up their total number of errors. The average across the two Synchronisation Technical Controllers is taken of the small, obvious and major errors, and then is submitted to the scorer to be inputted for the synchro error deduction. Process for major errors to follow 2.8 below.

2.8
Deductions

Predetermined deduction values for each validated unequal action:

Small	-0.1
Obvious	-0.5
Major	-3.0

The total of synchronisation errors will then be deducted from the elements score.

Calculation examples

		Small Errors	Obvious Errors	Major Errors
ROUTINE A	STC-1	14	3	0
	STC-2	16	4	0
	Average:	15	3.5	0
	Deduction:	15 X 0.1 = 1.5	3.5 X 0.5 = 1.75	0 X 3.0 = 0
	Total:	3.25		
ROUTINE B	STC-1	20	5	1
	STC-2	17	7	0
	Average:	18.5	6	0.5
	Deduction:	18.5 X 0.1 = 1.85	6 X 0.5 = 3.0	0.5 X 3.0 = 1.5
	Total:	6.35		

A template synchronisation technical controller form is set out immediately below:

Competition:					
Age Category:					
Event:	Duet Tech	Mixed Duet Tech	Team Tech	Acrobatic	
	Duet Free	Mixed Duet Free	Team Free	Combo	

Controller: **STC1** **STC2**

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