

Protocol for Using Touchpads at NWAL Meets

Three types of timing devices will be used:

- (1) Automatic Touchpads -- this is the primary timing system for determining official times.
- (2) Semi-automatic Backup Buttons -- this is the secondary timing system for determining official times.
- (3) Manual Watches -- this is the tertiary timing system for determining official times.

How to Determine Which Times to Use:

- (1) The **touchpad time is the official time** unless there is a reported late or missed touch on the pad, or unless there is a backup button "exception" (i.e., a report from the console operator that the backup button is at least 0.3 seconds different from the pad time), or unless the touchpad time is unavailable.
- (2) If a **late or missed touch** on the pad has been reported by an official and/or lane timer, the backup button shall be the official time. If the backup button is unavailable or questionable, the watch times shall be used in accordance with the NWAL rules V.F.4.a, p.16-17). Backup button or watch times may be adjusted for the difference in the timing system used (e.g., primary vs secondary); the spreadsheet on the page marked "Single Lane" may be used to calculate this adjustment.
- (3) If **no pad time is available**, the backup button shall be the official time. If the backup button is unavailable or questionable, the watch times shall be used in accordance with the NWAL rules V.F.4.a, p.16-17). Backup button or watch times may be adjusted for the difference in the timing system used (e.g., primary vs secondary); the spreadsheet on the page marked "Single Lane" may be used to calculate this adjustment.
- (4) If a **backup button exception** has been reported, use the chart on the page marked "Chart" to determine the official time.
- (5) If a **timing system malfunction occurs that affects all lanes equally** such that the primary and secondary times are inaccurate, but the order of finish and thus the absolute difference of time between the swimmers in a heat is accurate, then the watch times shall be used in accordance with NWAL rules V.F.4.a, p.16-17, but the times must be adjusted for the difference in the timing system used (primary vs tertiary; use the spreadsheet on the page marked "Entire Heat" to calculate this adjustment.
- (6) If the primary and secondary **timing system completely fails**, the watch times shall be the official times in accordance with the NWAL rules (V.F.4.a, p.16-17), and no adjustment for timing system difference is necessary.

Preferred Order of Use:

1. Touchpad (automatic)
2. Backup button (semi-automatic)
3. Watches (manual)

Indication of a Touchpad Malfunction:

1. Button time is > 0.3 sec. different from pad time.
2. An official or timer reports a late or missed touch on the pad.
3. No pad time registers at all.

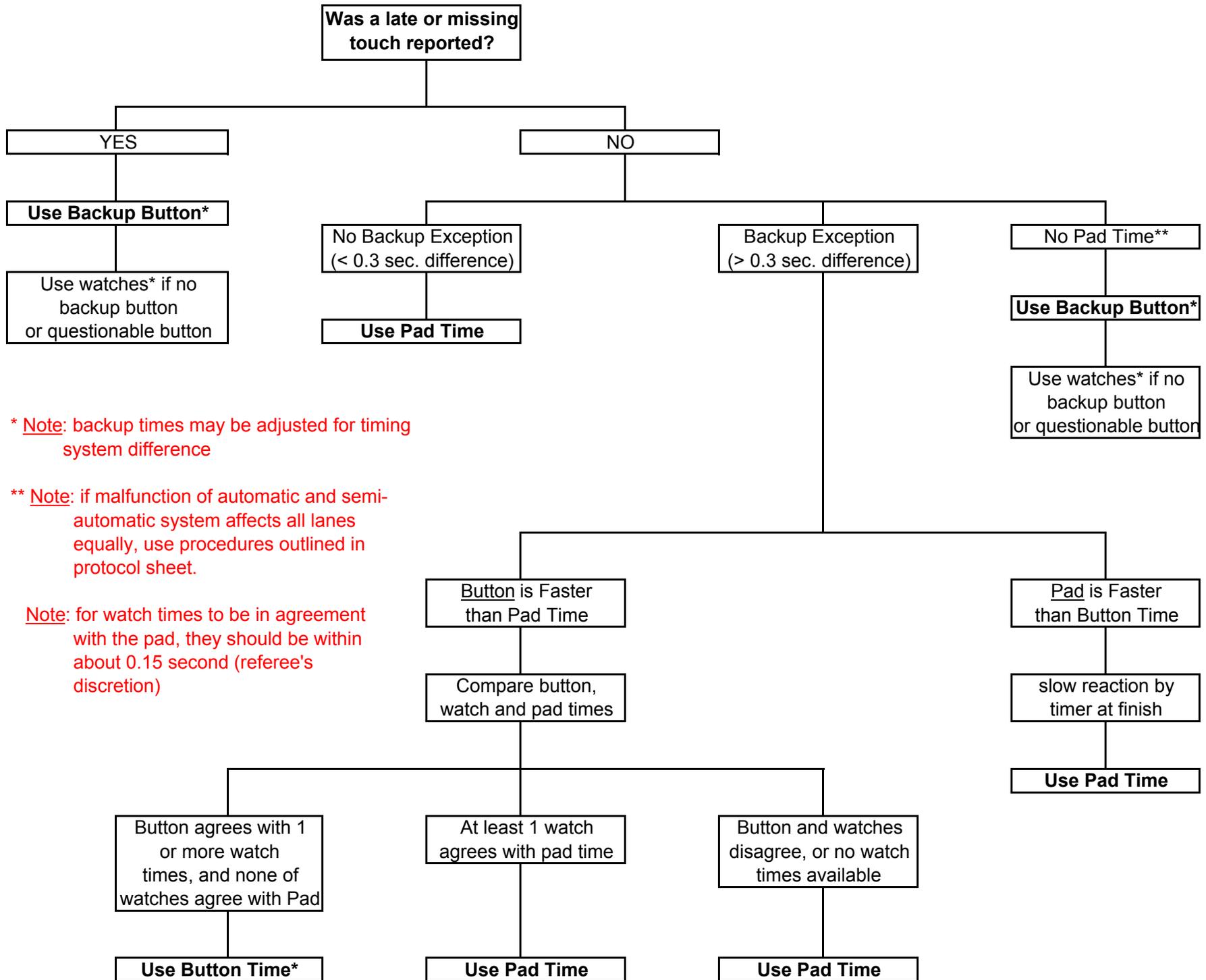
What Constitutes a Touchpad Malfunction?

1. Pad does not trigger a response on the console at all.
2. Pad is observed to have triggered after race is over and a confirmed touch on pad was observed.
3. Swimmer touched on top of pad w/ no response (no sensor).
4. Soft touch on the pad and no response.

Referee Override of Times:

1. Referee may overrule times in accordance with NWAL rules.
2. Referee cannot overrule pad time when pads are functioning properly.

Chart



* Note: backup times may be adjusted for timing system difference

** Note: if malfunction of automatic and semi-automatic system affects all lanes equally, use procedures outlined in protocol sheet.

Note: for watch times to be in agreement with the pad, they should be within about 0.15 second (referee's discretion)

Timing System Adjustment for a Single Lane*

<u>Lane</u>	<u>Exception?</u>	<u>Pad Time</u>	<u>Button Time</u>	<u>Official Time</u>
1	N	00:52.21	00:52.12	00:52.21
2	N	00:52.18	00:52.01	00:52.18
3	N	00:51.05	00:51.00	00:51.05
4	N	00:51.04	00:50.88	00:51.04
5	y	00:51.96	00:51.35	00:51.47
6	N	00:51.65	00:51.57	00:51.65
7	N	00:52.27	00:52.13	00:52.27
8	N	00:51.87	00:51.75	00:51.87

- * Directions: (1) enter a "Y" if there is an exception on a lane and "N" if no exception (< 0.3 sec. diff.)
 (2) enter the Pad Time and Button Time for each lane (blue columns)
 (3) enter times using the standard stopwatch format (min:sec.00)
 (4) spreadsheet will automatically calculate the official time (red column)

Timing System Adjustment for an Entire Heat*

<u>Lane</u>	<u>Pad Time</u>	<u>Watch Time</u>	<u>Official Time</u>
1	00:52.12	00:55.14	00:52.12
2	00:51.56	00:54.61	00:51.56
3	00:51.09	00:54.18	00:51.09
4	00:50.12	00:53.18	00:50.12
5	00:49.78	00:52.90	00:49.78
6	00:49.06	00:52.06	00:49.06
7	00:52.21	00:55.30	00:52.21
8	00:52.92	00:55.99	00:52.92

- * Directions: (1) enter the Pad Time and Watch Time for each lane (blue columns)
 (2) enter times using the standard stopwatch format (min:sec.00)
 (3) spreadsheet will automatically calculate the official time (red column)