

Appendix 1 – State Championship Bid Specifications

TRANSPONDER LOOP INSTALLATION GUIDLINES

- Start loop is typically 10 to 15 meters from the gate, this can be closer depending on the track layout.
- Finish line loop is to be installed as per the attached diagram.
- A critical requirement is to have a bike exclusion zone of a minimum of 2 meters at each end of the track loops.
- There needs to be provision for the start gate interface to be connected to a Smart Start or Pro Gate. A small cable (typically speaker cable) needs to be able to connect the start gate to the timing / scoring office.

Typical Installation:

Two sets of detector loops set into the ground or provision to install them, one at the Start Hill and the other at the Finish line.

These should comprise of 2 lengths of conduit a minimum of 20mm diameter, and the parallel sides must be set 600mm apart. Draw cords need to be placed in the conduit runs for ease of installation of the detector loop. Draw cords will be replaced when the detector loop is removed.

The two parallel runs of conduit should terminate in an end bow (a reticulation valve box is ideal for this purpose)

The conduits are to be set into the ground approx 100mm deep.

There must be an overlap at the edge of the track of at least 300mm. conduit runs need to be kept to a maximum of 12 meters in width. This is the longest detector loop available from MyLaps.

Both loops must be absolutely clear of any possible causes of interference such as metal barriers, wire fencing, mains power lines, metal finish lines etc.

BMX Sports WA will install the loop detectors prior to racing and remove at the conclusion of racing.

Start Signal:

Clubs running a “*Smart Start*” system need to provide connections to terminals 1 & 7 from there smart start box. These need to be clearly marked. “7” is the positive and “1” is the negative. The correct polarity of the connection to the gate interface is critical.

Tracks with “*Pro Gate*” need only provide access to the brain bow prior to racing as the interface connects directly in series with the “Gate” plug.

Cabling:

BMX Sports WA will provide all the relevant temporary cabling from the detector loops and start interface back to the scoring / timing office. Access through the office wall needs to be provided.

Sufficient power outlets need to be available for all the computer equipment.

How to install detection loop conduits:

Detection wire conduits must be installed in accordance with the drawings below in order to avoid a serious degradation in the loops performance.

- The detection loop conduits must be positioned in such a way that the transponder is above the centre of the loop when the front of the front tire is at the finish line.
- The width of the detection loop should exceed the width of the track by 300mm on each side and be 600mm apart.
- The loop conduits are to be a maximum of 12mt only.
- The detection loop is sensitive to interference, Keep all cables and metal objects away from it.
- A 2 meter exclusion zone needs to be installed at each end of the loop to avoid false passings from stray bikes.

