Transportation Services Division Maintenance Recommendation for Traffic Signals

TTR 809.320

September 2023

Maintenance Recommendation for Traffic Control System Pick-up Procedure

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TTR 809.320.01 SCOPE

The requirements given in this recommendation cover detailed procedures for Traffic Control System pick-ups. The tasks identified in the Traffic System Pick-up Checklists are shared between the Traffic Signal Operations Group (TSOG), the Communications System Operator (CSO) and the Maintenance Contractor.

TTR 809.320.02 REFERENCES – Not Used

TTR 809.320.03 DEFINITIONS – Not Used

TTR 809.320.04 DESIGN AND SUBMISSION REQUIREMENTS – Not Used

TTR 809.320.05 MATERIALS – Not Used

TTR 809.320.06 EQUIPMENT

Equipment required include terminal socket wrench (3/8" and 7/16" narrow wall sockets) assorted screwdrivers and pliers.

TTR 809.320.07 CONSTRUCTION

TTR 809.320.07.01 Pre Pick-up Preparation

The Traffic System Pick-up Checklists in Appendix A shall be completed for the relevant type of Traffic System. Check boxes on each checklist shall be entered as tasks are completed.

TTR 809.320.07.02 Pick-up

Pick-ups shall follow the following procedures:

- Install Bell plug in lower cabinet.
- As per the checklists in Appendix A for the type of Traffic System.
- Check boxes on checklist as tasks are completed.

TTR 809.320.08 QUALITY ASSURANCE – Not Used

TTR 809.320.09 MEASUREMENT FOR PAYMENT – Not Used

TTR 809.320.10 BASIS OF PAYMENT – Not Used

Appendix 809.320-A, September 2023
TransSuite Checklist for New Pickup /Signal Mod

| TransSuite CHECKLIST FOR NEV | N PICKUP/SIGNAL MOD | M Toronto |
|------------------------------|---------------------|------------------|
| TCS: | CSO: | |
| Location: | Contractor: | |
| Date: | TSO: | |
| Channel/Drop: | Controller | |
| • | Type: | |
| UCM Database: | Cabinet Type: | |

| PRE-PICKUP | | | | | | | | | |
|------------|-----------|----------|---|------------------------------|---|--|--|--|--|
| STEP | ACTION BY | √ | ACTION ITEM | INTERFACE | COMMAND(S) | | | | |
| 1 | | | Add channel if it does not already | | File > Add New > Channel (enter channel, | | | | |
| | | | exist | | position, CCS and protocol) | | | | |
| 2 | | | Configure new channel created | | Chn Commands > Configure | | | | |
| 3 | | | Add intersection if it does not already exist | | File > Add New > Intersection (enter TCS # and Jurisdiction) | | | | |
| 4 | | | Configure new intersection created | TransSuite TCS Mgmt UI | "Int Commands > Configure Fill in info on Config tab and click Apply Identify main phases on Miscellaneous tab and click Apply Check groups 1 and 2 in Actuation Detectors tab" | | | | |
| 5 | TSO | | Send config file to CCS (check with other staff before issuing command) | | CCS Commands > Send Config File | | | | |
| 6 | | | Update Channel/Drop on timing card | Microsoft Excel | Update timing card and highlight new Channel/Drop | | | | |
| 7 | | | Create a copy of the latest UCM version and rename or change version name of "Default version" if for a new signal | TransSuite UCM | Device List > Open TCS # that was created > Select default version > Create a new copy of this version (enter 'System Pickup' for New Name and current date for New Description) | | | | |
| 8 | | | Update Mod Database | Microsoft Access | L:\TSOG\Signal Modifications\Signal Mods Access Database\Mod Database.accdb | | | | |
| 9 | | | Provide copy of checklist showing the updated channel/drop info, timing card and system loop drawing to CSO | | Send email to csodesk@toronto.ca | | | | |
| PICKUP | | | | | | | | | |
| STEP | ACTION BY | ✓ | ACTION ITEM | INTERFACE | COMMAND(S) | | | | |
| 10 | | | Bring signal on Standby | | Int Commands > Put Standby | | | | |
| 11 | | | Pickup signal | | Int Commands > Put Online | | | | |
| 12 | | | Check comm status | | Channel Report > Drop Info (valid % should be above 90%) | | | | |
| 13 | cso | | Check online status | TransSuite TCS Mgmt UI | Intersection Reports (Comm Mode and Comm Status should show Online. If signal does not pickup and needs to be sent to Bell, take signal offline - Int Commands > Put Offline.) | | | | |
| 14 | | | Confirm detector monitoring with contractor for each local detector programmed (also obtain information from contractor on what lane the detector is serving) | | Intersection Reports > Dets (vehicle detectors to test can be found from the uploaded data on the Ctrlr DB Mgr; NS pushbutton calls should be reported on position 2 and EW on 6) | | | | |

| Local Detectors – Intrusive | | | | | | | | | |
|---------------------------------|---|----|----|----|----|----|----|----|--|
| Position: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Monitor: | | | | | | | | | |
| Type (veh/ped) | | | | | | | | | |
| Lane Direction | | | | | | | | | |
| Position: | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| Monitor: | | | | | | | | | |
| Type (veh/ped) | | | | | | | | | |
| Lane Direction | | | | | | | | | |
| Local Detectors – Non-Intrusive | | | | | | | | | |

| Position: | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|----------------|----|----|----|----|----|----|----|----|
| Monitor: | | | | | | | | |
| Type (veh/ped) | | | | | | | | |
| Lane Direction | | | | | | | | |
| Position: | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| Monitor: | | | | | | | | |
| Type (veh/ped) | | | | | | | | |
| Lane Direction | | | | | | | | |

| STED | ACTION BY | \ | ACTION ITEM | INTER | EACE | CC | NAMA NII | 7(8) |
|------------------|------------|----------|--|------------|--------|--|------------|-----------------------|
| STEP 15 | CSO | <u> </u> | Verify actuation and system | | ACE | COMMAND(S) Intersection Reports > Dets (check actuations | | |
| 15 | 030 | | detectors. Make necessary | | | | | |
| | | | changes to detector coding as | | | and that volume, occupancy and speed data is reported) | | |
| | | | required | | | , , | | |
| 16 | Contractor | | Create Pre-emption Call | | | | | |
| 17 | CSO | | Confirm Pre-emption status | | | Intersection Reports Preempt | > Actua | al State should show |
| 18 | Contractor | | Set time in controller with syste time | m | | | | |
| 19 | CSO | | Check Time consistency | | | Intersection Reports | > Time | Consistency > |
| | | | - | | sSuite | Request Report (Tim | | |
| | | | | TCSI | | than 3 secs, if not, go | | |
| 20 | Contractor | +- | Update cabinet paperwork with | | 1 | click channel number | r, tnen | click Time Broadcast) |
| 20 | Contractor | | channel/drop info | | | | | |
| 21 | CSO | | Activate split logger | | | Int Commands > Mai | nage S | TL > Start STL > |
| | | | | | | enter 2999 for year | | |
| 22 | Contractor | | Upload and save controller | | | on ASC/3, ATC-1000 | 0 & Sep | ac controllers |
| | | | database to UCM version indicated above and set version | _ | | | | |
| | | | as default | ' | | | | |
| 23 | Contractor | | Ensure correct settings for loca | I | | | | |
| | | | time differential | | | | | |
| POST-P | | , | ACTIONITEM | WITED | E4.0E | 0.0 | | 0 (0) |
| STEP | ACTION BY | | ACTION ITEM Confirm the controller database | INTER | FACE | | otrollor / | check all boxes), Set |
| 24 | | | was uploaded and saved in UC | | | this version to defaul | | check all boxes), Set |
| 2-7 | | | and set as default | | | and research | | |
| 25 | _ | | Review uploaded data with info | | | | | |
| 25 | | | on timing card | UC | M | T. D | 01 | |
| 26 | | | Ensure DST Setting is disabled | 1 | | "Econolite: Time Bas Peek: NEMA Data > | | |
| 20 | | | | | | Coord Variables" | Cooldi | nation rarameters > |
| 27 | | | Update timing card in cabinet | | | | | |
| 21 | | | with system pickup date | | | | | |
| 28 | | | Check controller timings and | On- | Site | | | |
| 29 | | | operation in the field Verify local time differential | | | | | |
| | TSO | H | Update local & system detector | 's | | Int Commands > Cor | nfigure | > Act Det > Verify |
| 30 | | - | including detector labels | | | Int Commands > Configure > Act Det > Verify "Det Enb" column and fill out "Label" column | | |
| | | | Generate and Review Split | | | Intersection Report > | > Split L | ogger > Phase Times |
| 31 | | | Logger report | Trans | | > Enter Start and End Dates and Times > Generate Report Int Commands > Show Controller Log | | |
| | | \vdash | Check controller log for any | TCS I | | | | |
| 00 | | | critical failures over 24 hour | | • | in Commands > Sh | OW COII | tiolier Log |
| 32 | | | period and adjust intersection | | | | | |
| | | | filters as required | | | | | |
| 22 | | | Create ATMS drawing file if for | ITA | MS | | | |
| 33 | | | new signal or new/removed phases | Expl | orer | | | |
| 34 | | | Update Cartegraph | | | Enter date of pickup | comple | ted shown below |
| RESULT | S | | | | | | | |
| Completed: | | | □ Yes □ No | Date Ch | ecked: | | | |
| | | | | Time Ch | ecked: | | | |
| Commer | nts: | | | | | | | |
| Staff Na | me: | | T | Signature: | | | Date: | |
| Supervisor Name: | | | | Signature: | | | | |